A NEW INSTRUMENT FOR ASSESSMENT OF EMOTION REGULATION: THE EMOTION REGULATION INTERVIEW-REVISED FORM

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Abstract

The main purpose of the present study is to adapt the Emotion Regulation Interview (ERI) into Turkish and to examine its psychometric properties, while at the same time, to revise it by extending its scope in terms of emotions, emotion regulation (ER) strategies, and the efficacy measures related to ER strategies. For this purpose, various adjustments have been made to the original interview form, resulting in the Emotion Regulation Interview-Revised Form (ERI-RF). The ERI-RF evaluates the regulation of the emotions (i.e., anxiety, sadness, anger) experienced in romantic relationships, recognizing that emotions and ER mostly emerge in close relationships. A total of 138 participants in romantic relationships were interviewed using the ERI-RF, and second interviews were conducted with 31 of the participants for the assessment of test-retest reliability. Results showed that the ERI-RF had good validity results, and the use of some ER strategies to certain emotions demonstrated sufficient test-retest reliability. It was concluded that the ERI-RF, as an assessment tool for the evaluation of a wide range of ER strategies based on the most frequently experienced emotions, has sufficient psychometric properties, and that its use in different samples in feature studies may yield useful results.

Keywords: emotion; emotion regulation; process model; interview; romantic relationships.

Introduction

Emotions play an essential role in the life of the individual, and have a variety of intrapersonal functions, such as aiding in decision-making or strengthening memory, and as well as interpersonal functions, such as catalyzing social relationships (Gross, 2014; Gross & Thompson, 2007; Levenson, 1999).

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Despite these beneficial properties, emotions sometimes need to be regulated (i.e., when their type, intensity or duration is inappropriate for the situation) (Gross, 2014). Emotion regulation (ER) is defined as a process in which one can affect various factors related to emotion (i.e., the emotions that one has, and when and how he/she experiences and expresses them) (Gross, 1998b). In Gross' (1998b; extended in 2015) process model of emotion regulation, which is one of the most well-known models of ER, five main ER processes are presented corresponding to different time points in the emotion-generation process. Under the category of antecedent-focused ER, which occurs immediately before an emotional response, a. *situation selection* refers to the approach to, or avoidance of, a certain situation in order to achieve the desired emotional state, b. *situation modification* refers to the modification of the situation to change its emotional effect, c. *attentional deployment* involves shifting attention to different aspects of the situation, or detracting altogether from the situation, d. *cognitive change* involves changing the meaning of the situation to alter its impact; and as a response-focused ER that emerges after the generation of the emotional response, e. *response modulation* includes altering the physiological, experiential or behavioral elements of emotional response, such as increasing or decreasing the emotional expressions like the suppression of facial expression (Gross, 1998b, 1999; Gross & Thompson, 2007). Among recent factors that have attracted the attention of researchers in clinical psychology, ER, in this conceptualization, is considered a transdiagnostic factor (e.g., Aldao & Nolen-Hoeksema, 2010; Kring & Sloan, 2010). Previous studies have generally reported difficulties in ER being associated with such psychopathologies as post-traumatic stress disorder, anxiety and depressive symptoms (e.g., Aldao et al., 2010; Moore et al., 2008; Seligowski et al., 2015), while regulating emotions effectively is associated with psychological well-being in terms of, for example, life satisfaction, self-esteem, and the experience of more positive and fewer negative emotions (Gross & John, 2003).

A variety of measures have been developed for the evaluation of different strategies and difficulties in ER, most of which are based on self-report, among which the Emotion Regulation Questionnaire (Gross & John, 2003) and the Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004) are most commonly used. Although the self-report format has some advantages, such as rapid evaluation and reaching a large number of people, it comes with some limitations, particularly in the emotion context. First, ER is actually experienced momentarily, and so assessment based on the general statements in these measures is difficult. Furthermore, the situation or the emotional experience aimed to be evaluated are generally not clear. As a further limitation, these instruments only focus on one dimension, such as the presence/absence of the strategy or its frequency, but not the efficacy of the ER strategy in question. Finally, as emotions and these regulation strategies are embedded in daily life, some statements in self-report measures may be unable to capture the real sense, and so may be easily misunderstood by the participants (e.g., Lee et al., 2017).

The Emotion Regulation Interview (ERI) (Werner et al., 2011) was developed to circumvent some of the limitations of the available self-report instruments, being a more comprehensive and detailed assessment tool based on an interview format. The ERI is a clinician-administered structured interview that includes the seven ER strategies (i.e., situation selection, situation modification, attentional deployment, cognitive change, suppression, relaxing body, acceptance) associated with the five main ER processes, in accordance with the process model. The ERI was applied for the first time by Werner et al. (2011) in a socially anxious population. The ERI assesses the use of ER strategies in different situations that evoke social anxiety and also the self-efficacy of three of these strategies (i.e., cognitive change, suppression and acceptance) are evaluated comprehensively in a range of 0–100%. It is worthy of note that the ERI focuses on a single emotion, and evaluates only the intrapersonal aspect of ER, although individuals experience a wide variety of emotions in daily life, and may regulate these emotions in an interpersonal way, including seeking or receiving social support from others (Hofmann, 2014; Rimé, 2007; Zaki & Williams, 2013). It is thus important to take these issues into account in the interview form.

Although several self-report measures have been adapted into Turkish for the assessment of this concept in the Turkish context (e.g., Difficulties in Emotion Regulation Scale, Rugancı & Gençöz, 2010; Emotion Regulation Questionnaire, Totan, 2015), there has as yet been no attempt to adapt such a detailed and novel assessment tool as this interview form. It has been established that ER is actually both an intrapersonal and interpersonal concept (Hofmann, 2014; Rimé, 2007; Zaki & Williams, 2013), although current tools focus primarily on its intrapersonal nature, and beyond social anxiety, this is important also for other emotions. Accordingly, in the present study, initially we aimed to adapt the ERI into the Turkish language, and at the same time, to revise it by extending its scope in terms of emotions, ER strategies and efficacy measure of the ER strategies. In other words, we wanted to develop the ERI-Revised Form (ERI-RF) by including items related to the interpersonal nature of ER, other strategies that can be adjusted for some salient emotions, and a standard efficacy measure for all ER strategies.

In order to develop the ERI-RF, we first extended the scope of the emotions by including anxiety, sadness and anger, which are reported to be the most experienced and regulated in daily life and in interpersonal relationships (e.g., Gross et al., 2006; Heiy & Cheavens, 2014). Considering the notion that emotions and ER mostly emerge in social interactions, especially in close relationships (e.g., Andersen & Guerrero, 1998; Gross et al., 2006; Oatley & Duncan, 1992, 1994; Planalp, 1999; Scherer et al., 1988), it is aimed to adapt the ERI to the Turkish context by taking into account situations that cause anxiety, sadness and anger in romantic relationships, being considered to be one of the most important interpersonal relationships in adult life (Whisman & Baucom, 2012), while other interpersonal relationships might be more diverse and may have a confounding effect. Thus, in addition to making a comprehensive assessment of ER, which affects well-being and

quality of life (Gross & John, 2003) through different emotions, a suitable basis was formed for the evaluation of interpersonal ER.

Second, although the ERI covers a variety of the ER strategies included in Gross' (1998b) process model, it does not include some of the strategies that can be used to regulate the most frequently experienced emotions in daily life, which will be addressed in the ERI-RF. Accordingly, the scope of the ERI-RF has been extended with the addition of two further intrapersonal strategies, namely rumination and response modulation (including substance use and/or self-medication and/or self-harm and/or eating), which are compatible with the process model (Peña-Sarrionandia et al., 2015). Moreover, the ERI evaluates intrapersonal ER, through which individuals regulate their emotions internally. Considering ER mostly emerges in interpersonal relationships, and includes not only intrapersonal but also interpersonal aspects (Hofmann, 2014; Rimé, 2007; Zaki & Williams, 2013), two strategies that refer to interpersonal ER which is defined as "using social interactions to regulate one's own or others' emotions" (Zaki & Williams, 2013, p. 804) are also included in the ERI-RF, being the social support-seeking strategy ("intrinsic interpersonal regulation"; regulating one's own emotion by initiating social interaction, Zaki & Williams, 2013), and the extrinsic regulation ("extrinsic interpersonal regulation"; regulation of emotion by someone else, Zaki & Williams, 2013). The items of some of the measures in literature including interpersonal ER were used for the probes and examples of intrinsic and extrinsic interpersonal regulation (e.g., Hofmann et al., 2016; Lee et al., 2017; Myers, 1996; Niven et al., 2011). Thereby, the ERI-RF has been developed into an assessment tool incorporating many strategies that evaluate intrapersonal ER in detail, and at the same time, ER strategies that can evaluate interpersonal ER, which is often neglected by ER theories and is considered a limitation of many measures in the field (Hofmann, 2014).

Third, since the present study is not conducted with the socially anxious population, and therefore there are no specific expectations in terms of the self-efficacy of the ER strategy used, it was aimed to assess the efficacy of the strategy, and to define the efficacy clearly and consistently for all strategies (the definition of efficacy differed in the three strategies evaluated in terms of self-efficacy in the original form). In ER literature, "efficacy" has been defined as the change in the target emotion through the use of the ER strategy (e.g., Carthy et al., 2010), therefore, in the present study, whether the use of the ER strategy decrease the target negative emotion has been questioned for the efficacy. To address the issue of the ERI being considered limited by the researchers in terms of its assessment of efficacy for only three of the ER strategies, the ERI-RF efficacy measures have been arranged to cover all ER strategies included in the revised form. Consequently, the ERI-RF evaluates the frequency of use of 11 ER strategies (i.e., situation selection, situation modification, attentional deployment, rumination, cognitive change, suppression, relaxing body, response modulation, social support-seeking, extrinsic regulation and acceptance), and assesses their efficacy in decreasing the anxiety, sadness and anger

experienced in romantic relationships. In the present study, the validity and reliability of the ERI-RF are examined in a sample of romantically involved participants. In future studies, researchers and practitioners will be able to make use of the ERI-RF for the comprehensive evaluation of ER in specific situations and emotions, without experiencing the known limitations of self-report measures.

Method

Participants

The sample of the present study was actually a part of larger research project examining the dyadic relationships between ER strategies, attachment orientations, and relational, subjective and psychological well-being. The ERI-RF was administered to 138 adult participants (69 male; 69 female) who had been in a heterosexual romantic relationship for at least 6 months. The inclusion criteria for the study were: over the age of 18, no physical violence in their relationship, and no current psychotic disorders, life-restricting neurological conditions or health problems preventing them from filling out the questionnaires. The mean age of the sample was 28.61 (*SD*=10.09, in a range of 18–59), 36.2% of the participants were married and 42% were cohabiting. The mean duration of the romantic relationships of the participants was 7.22 years, and the education level of the vast majority of the sample was university and above (88.4%).

Instruments

The Emotion Regulation Interview-Revised Form (ERI-RF)
This subsection describes the original ERI form and the new revised form, together with the development process of the latter form. The ERI is a structured clinical interview developed initially by Werner et al. (2011) for the evaluation of ER in accordance with Gross' (1998b; extended in 2015) process model. The original interview evaluates seven ER strategies (i.e., situation selection, situation modification, attentional deployment, cognitive change, suppression, relaxing body, acceptance), corresponding to the five main ER processes. In the original study, Werner et al. (2011) applied the ERI particularly in cases of social anxiety, exposing the participant to a simple relevant emotion induction paradigm, and then asking them to evaluate their use of regulation strategies in such situations, as well as in some social situations they had encountered in the previous month. The participants were asked to rate their use frequency of each of the seven regulation strategies (ranging from 0% = never; or not at all, to 100% = always) and the self-efficacy of three of these strategies (i.e., cognitive change, suppression, acceptance; in a range of 0 = not, to 100 = completely). Generally speaking, each ER strategy on the interview form can expected to be related to the self-report scale with the same

content. Accordingly, significant correlations were reported between the ERI-situation selection frequency with the avoidance subscale of the social anxiety measure ($r=.55$), the ERI-attentional deployment frequency with the distraction subscale of a response styles measure ($r=.25$); and the ERI-cognitive change and suppression frequencies with the cognitive reappraisal ($r=.27$) and suppression ($r=.21$) subscales of another ER scale, respectively. The test-retest coefficients of the ER strategies, included in the ERI, obtained following a second interview 4 months later, were between .62 and .77.

This study aims to revise the ERI in several ways, creating a new form named as the ERI-Revised Form (ERI-RF). We began by extending its scope with the inclusion of three different emotions: anxiety, sadness and anger, being those reported and regulated most frequently in daily life and in interpersonal relationships, such as in romantic relationships (e.g., Gross et al., 2006; Heiy & Cheavens, 2014). Considering the context of emotion and ER in close relationships (e.g., Gross et al., 2006; Planalp, 1999), we changed the focus of the ERI to interpersonal context by involving situations producing anxiety, sadness, and anger in the interactions of romantic partners. Second, in order to ensure compatibility with the original process model, we initially included two further intrapersonal ER strategies, namely rumination and response modulation (e.g., substance use and/or self-medication and/or self-harm and/or eating) (Peña-Sarrionandia et al., 2015). Then, based on the understanding that emotions are also regulated interpersonally (Hofmann, 2014; Rimé, 2007; Zaki & Williams, 2013), we added the dimension of social support-seeking strategy (i.e., intrinsic interpersonal regulation) and extrinsic regulation (i.e., extrinsic interpersonal regulation) to the ERI-RF. We further drew upon some other relevant measures in literature assessing intrinsic and extrinsic interpersonal regulation (e.g., Hofmann et al., 2016; Lee et al., 2017; Myers, 1996; Niven et al., 2011). Third, we expanded and standardized the efficacy measure (i.e., the change in the target emotion through the use of the ER strategy; e.g., Carthy et al., 2010) to all ER strategies included in the revised form. Finally, the new ERI-RF was drawn up, comprising 11 different ER strategies that are both intrapersonal and interpersonal (i.e., situation selection, situation modification, attentional deployment, rumination, cognitive change, suppression, relaxing body, response modulation, social support-seeking, extrinsic regulation and acceptance). The resulting new-form ERI-RF evaluates 11 regulation strategies in two dimensions, being those of frequency and efficacy.

The ERI-RF was sent to five expert clinical psychologists studying ER who evaluated the suitability of the items, and the final version of the ERI-RF was created taking into account their feedback. Furthermore, a pilot study was carried out to evaluate the suitability of the strategies included in the ERI-RF in terms of content and the clarity of the statements, involving five undergraduates majoring in psychology. Various revisions were made to the ERI-RF in the light of feedback from the participants in the pilot study.

The resulting ERI-RF is an interview form for the evaluation of the frequency of use and efficacy of 11 ER strategies applicable to three emotions. To begin with, the participants are informed that they should focus on an interaction with their romantic partners within the last month and to report a situation in which they experienced anxiety, sadness, and anger of 60 or above on the Subjective Unit of Distress Scale (SUDS; Wolpe, 1958). The participants are then asked to report the use frequency of each of the 11 regulation strategies related to a specific condition and emotion in a range of 0% (never, or not at all) to 100% (always), and to give specific examples of what they did while applying the strategy to each situation. The probes of the 11 ER strategies were: "What percent of the time did you _____ to reduce your anxiety / sadness / anger?" (1) *Situation Selection:* avoid situations (2) *Situation Modification:* modify the situation (3) *Attentional Deployment:* distract yourself (4) *Rumination:* think about the situation repetitively (5) *Cognitive Change:* think about the situation differently (6) *Suppression:* hide visible signs of your anxiety / sadness / anger (7) *Relaxing Body:* relax your body (8) *Response Modulation:* use substance and/or self-medication and/or self-harm and/or eating (9) *Social Support-Seeking:* seek social support (from your partner) (10) *Extrinsic Regulation:* consider others (your partner) adopted an attitude that reduce your anxiety / sadness / anger (11) *Acceptance:* accept your anxiety / sadness / anger and make no effort to change. After each probe, the participants also rated the efficacy of each ER strategy in a range of 0% (not) to 100% (completely): "How efficient was _____ (e.g., *Cognitive Change:* trying to think about the situation differently) to reduce your anxiety / sadness / anger?" The inventory is then applied in the same format but for another condition that evoked another emotion.

Measures to Assess Validity of the ERI-RF

Emotion Regulation Processes (ERP): The ERP, developed by Schutte et al. (2009), consists of 28 items including the ER strategies presented by Gross (1998b) in the process model, and detailed by Gross and John (2003; John & Gross, 2007). It contains a total of seven ER strategies, including four antecedent-focused strategies (i.e., situation selection, situation modification, attentional deployment, cognitive change) and three strategies containing different elements of the response-focused ER process (i.e., experiential response modulation, behavioral response modulation, physiological response modulation). Each strategy is assessed by four items on a 7-point scale (1=strongly disagree, 7=strongly agree). The Cronbach's alpha coefficients of ER strategies range between .59 to .96, while the internal consistency of the antecedent- and response-focused ER were .91 and .85, respectively. The ERP was adapted to Turkish by Aka (2011), in which the Cronbach's alpha coefficients of the regulation strategies were reported to vary between .51 and .86, while antecedent- and response-focused ER were .86 and .83, respectively. It has been reported that ERP antecedent- and response-focused ER subscales have acceptable associations with relevant measures, supporting the validity of the Turkish form.

Emotion Regulation Questionnaire (ERQ): Developed by Gross and John (2003), the ERQ consists of 10 items aimed at evaluating individual differences in two dimensions of ER, namely reappraisal and suppression, with a 7-point response scale (1=strongly disagree, 7=strongly agree). The Cronbach's alpha coefficient has been determined as .79 for reappraisal and .73 for suppression, and the test-retest coefficient as .69 for both subscales. The ERQ was adapted to Turkish by Totan (2015). The Cronbach's alpha coefficients of the Turkish form were reported as .78 for the reappraisal subscale and .71 for the suppression subscale, while the test-retest coefficients were .67 and .65, respectively. The ERQ reappraisal subscale has been reported to be associated with emotional self-efficacy, life satisfaction and happiness, while the suppression subscale has been found to be negatively associated with perceived self-efficacy in the management of negative affect.

Difficulties in Emotion Regulation Scale-Brief Form (DERS-16): Bjureberg et al. (2016) designed the DERS-16 as a short form of the original scale (Gratz & Roemer, 2004), with five subscales (i.e., clarity-lack of emotional clarity, goals-difficulties engaging in goal-directed behavior, impulse-impulse control difficulties, strategies-limited access to emotion regulation strategies, and non-acceptance-non-acceptance of emotional responses), and 16 items rated on a 5-point scale (1=almost never, 5=almost always). Higher scores indicate greater difficulty in ER. Bjureberg et al. (2016) reported the DERS-16 to be a reliable (i.e., α=.92, test-retest coefficient=.85 for total scale) measure with good validity results. Yiğit and Guzey Yiğit (2019) adapted the scale to Turkish, and reported satisfactory reliability (i.e., α=.92 for total scale, between .78 and .87 for subscales), while the factor structure was confirmed once more for the Turkish version, with acceptable associations with the relevant measures, supporting its validity in this culture.

Relationship Assessment Scale (RAS): The RAS developed by Hendrick (1988) for the assessment of romantic relationship satisfaction comprises seven items rated on a 5-point scale (1=low satisfaction, 5=high satisfaction). The Cronbach's alpha coefficient was reported to be .86, and the RAS total score was correlated significantly with other relationship measures. The scale was adapted to Turkish by Curun (2001), the Cronbach's alpha coefficient of which was .86.

Depression Anxiety Stress Scales (DASS-21): The DASS was developed for the evaluation of negative emotional symptoms (Lovibond & Lovibond, 1995). A total of 42 items are rated on a 4-point scale (0=did not applied to me at all, 3= applied to me very much, or most of the time), with 14 items each for the depression, anxiety and stress scales. Lovibond and Lovibond (1995) suggested also the short form DASS-21, assessing each subscale with seven items, and Henry and Crawford (2005) evaluated DASS-21 as a valid and reliable measure. The Cronbach's alpha coefficients for the depression, anxiety and stress subscales of the DASS-21 were determined as .88, .82 and .90, respectively. It is also stated that the scale correlated with other depression and anxiety measures (Henry & Crawford, 2005). The DASS-21 was adapted to Turkish by Yılmaz et al. (2017), the Cronbach's alpha coefficients

of which for the depression, anxiety and stress subscales were .82, .81 and .76, respectively.

Procedure

The present study was approved by the Ethics Committee of the Faculty of Letters of Dokuz Eylul University. The participants were reached through announcements on social media, posters and personal contacts. Potential participants initially filled out an online information form, and arrangements were made to meet those who met the inclusion criteria. After obtaining their informed consent, the participants first completed the questionnaire set, and were then interviewed separately via the ERI-RF in mixed order for three emotions (i.e., anxiety, sadness, anger) by the first author. At the end of the interviews, in order to bring balance and to close the interview with a positive emotion, the participants were asked to describe a situation in which they had recently experienced positive emotions (e.g., happiness, joy, excitement, etc.) in their romantic relationship (within the last month if possible). Each interview took 45–50 minutes, and entire application took an average of 1 hour for each participant. For the test-retest reliability evaluation, the ERI-RF was applied to 31 of the participants a second time 4–10 weeks after the first interview.

Results

Descriptive evaluation of the ERI-RF

The means and standard deviations of the strategy use frequency and efficacy ratings of each ER strategy included in the ERI-RF for three different emotions (i.e., anxiety, sadness, anger) experienced in the romantic relationships are presented in Table 1. In terms of frequency, when considering 50 percent as the mid-point, it would seem that among the most preferred methods were rumination (> 66%), situation modification (> 54%) and social support-seeking (> 51%) for regulating these emotions, while relaxing body and response modulation were the least common (> 20%). In terms of efficacy, extrinsic regulation (> 70%) and social support-seeking (> 54%), as interpersonal ER strategies, were among the most effective strategies for all three emotions, while the participants identified rumination (< 4%), suppression (< 15%) and response modulation (< 26%) as the least effective strategies in reducing target emotions. Furthermore, after applying the rumination strategy, which the participants stated to be the least effective approach to decreasing the target emotions, 68.8% of the participants reported experiencing an increase in anxiety, 64.5% in sadness and 63% in anger. Suppression, as the

second least effective strategy for the reduction of target emotions, also increased the participants' anxiety (12.3%), sadness (5.8%) and anger (9.4%).

Table 1. Descriptive statistics of use frequency and efficacy of the ERI-RF strategies

ER Strategy	Emotion	Frequency M (SD)	Efficacy M (SD)
Situation Selection	Anxiety	42.75 (34.53)	30.36 (33.19)
	Sadness	42.90 (30.74)	30.43 (32.40)
	Anger	39.20 (33.77)	38.26 (35.70)
Situation Modification	Anxiety	67.39 (30.84)	56.96 (32.46)
	Sadness	54.64 (36.41)	47.39 (33.88)
	Anger	60.80 (33.16)	47.75 (33.44)
Attentional Deployment	Anxiety	49.42 (34.15)	43.33 (29.95)
	Sadness	52.61 (33.27)	45.07 (31.35)
	Anger	43.91 (36.05)	47.46 (30.83)
Rumination	Anxiety	68.62 (24.38)	2.75 (12.54)
	Sadness	66.16 (25.89)	1.38 (6.96)
	Anger	67.25 (29.39)	3.33 (13.20)
Cognitive Change	Anxiety	59.13 (30.34)	56.09 (28.50)
	Sadness	55.80 (31.83)	56.09 (26.18)
	Anger	47.32 (33.78)	54.20 (29.17)
Suppression	Anxiety	42.17 (39.31)	12.54 (25.60)
	Sadness	34.78 (36.81)	7.97 (19.75)
	Anger	29.93 (33.19)	14.49 (27.05)
Relaxing Body	Anxiety	24.49 (34.22)	35.07 (30.12)
	Sadness	22.83 (32.13)	35.94 (30.08)
	Anger	32.90 (35.31)	44.49 (32.26)
Response Modulation	Anxiety	20.65 (28.72)	17.66 (24.68)
	Sadness	20.22 (28.35)	19.20 (26.22)
	Anger	20.94 (29.74)	25.43 (29.77)
Social Support-Seeking	Anxiety	56.16 (37.13)	57.97 (31.11)
	Sadness	53.48 (38.64)	56.45 (32.10)
	Anger	51.67 (36.08)	54.06 (32.88)
Extrinsic Regulation	Anxiety	55.22 (36.67)	71.38 (27.64)
	Sadness	53.12 (36.04)	70.14 (29.91)
	Anger	52.75 (35.69)	71.74 (28.59)
Acceptance	Anxiety	35.43 (31.53)	28.84 (33.11)
	Sadness	42.39 (32.70)	32.03 (34.67)
	Anger	31.38 (31.33)	26.67 (32.76)

Aside from quantitative data, the present study also made use of qualitative data, obtained by asking the participants to what extent they used each ER strategy for a specific situation, and then what they did while using this strategy. The data were analyzed using MAXQDA, through which data was obtained about the techniques used by the participants for each ER strategy. Accordingly, the most frequently reported techniques for each strategy were as follows: "not bringing up subjects that will cause a negative emotion" for situation selection; "attempting to change the situation by trying to resolve the problem" for situation modification; "trying to distract oneself by doing the things one enjoys" for attentional deployment; "focusing on the problem or negative thoughts" for rumination; "considering options other than negative thoughts" for cognitive change; "trying to look different / normal" for suppression; "breathing deeply" for relaxing body; "smoking, eating or drinking alcohol" for response modulation; "expressing the emotion and seeking support from one's partner" for social support-seeking; "trying to reduce one's negative emotions by a partner explaining his/her perspective" for extrinsic regulation; and "experiencing the emotion" for acceptance strategy.

Validity and Reliability of the ERI-RF

To evaluate validity, the correlational relationships between the use frequency of each strategy in the ERI-RF for anxiety, sadness and anger and self-report measures that assess the same or similar ER strategies were examined initially. As can be seen from Table 2, the results indicate the presence of significant associations between the relevant subscales of the measures. The ERI-RF frequency of use of the suppression strategy for all three emotions were correlated with the ERQ suppression subscale ($r=.30$, $r=.34$, and $r=.26$ for anxiety, sadness and anger, respectively); for sadness and anger, the ERI-RF response modulation strategy was correlated with the impulse subscale in DERS-16 ($r=.25$ and $r=.27$, respectively); for sadness, the ERI-RF situation modification strategy was correlated with the situation modification subscale in the ERP ($r=.18$); the ERI-RF cognitive change strategy was correlated with the cognitive change subscale in the ERP ($r=.17$) and the reappraisal subscale in the ERQ ($r=.23$); and the ERI-RF response modulation strategy was correlated with the physiological response modulation subscale in the ERP ($r=.21$).

Table 2. Associations between the ERI-RF strategies with self-report measures

Anxiety

Situation Selection	Situation Modification	Attentional Deployment	Rumination	Cognitive Change	Suppression	Relaxing Body	Response Modulation	Social Support-Seeking	Extrinsic Regulation	Acceptance
$DERS_{clar}$ = .23**	RAS = .21*	$DERS_{goals}$ = .17*			ERQ_{supp} = .30**	ERP_{st_sel} = -.21*		ERP_{cog_ch} = .18*	ERQ_{supp} = -.18*	$DERS_{strat}$ = .17*
$DERS_{goals}$ = .27**		ERQ_{supp} = .18*						ERP_{beh_md} = .24**	RAS = .30**	$DASS_{dep}$ = .19*
$DERS_{strat}$ = .27**								ERQ_{supp} = -.23**		$DASS_{str}$ = .18*
$DERS_{total}$ = .28**								RAS = .24**		
ERQ_{supp} = .27**										
RAS = -.20*										
$DASS_{anx}$ = .20*										
$DASS_{str}$ = .20*										

Sadness

Situation Selection	Situation Modification	Attentional Deployment	Rumination	Cognitive Change	Suppression	Relaxing Body	Response Modulation	Social Support-Seeking	Extrinsic Regulation	Acceptance
$DERS_{clar}$ = .25**	ERP_{st_mod} =.18*	ERP_{exp_md} = .23**		ERP_{cog_ch} = .17*	ERQ_{supp} = .34**		ERP_{phys_md} = .21**	ERP_{beh_md} = .19*	ERQ_{supp} = -.20*	$DERS_{clar}$ = .20*
$DERS_{goals}$ = .19*	$DASS_{str}$ = -.19*	$DERS_{clar}$ = .19*		ERQ_{reappr} = .23**	$DERS_{n\_ac}$ = .20*		ERP_{cog_ch} = -.18*	ERQ_{supp} = -.20*	RAS = .18*	$DASS_{dep}$ = .22**
$DERS_{total}$ = .21*				$DERS_{strat}$ = -.22**			$DERS_{impulse}$ = .25**	RAS = .17*		
ERQ_{supp} = .25**				RAS = .23**				$DASS_{dep}$ = -.18*		
RAS = -.20*				$DASS_{dep}$ = -.17*						
				$DASS_{str}$ = -.19*						

Anger

Situation Selection	Situation Modification	Attentional Deployment	Rumination	Cognitive Change	Suppression	Relaxing Body	Response Modulation	Social Support-Seeking	Extrinsic Regulation	Acceptance
ERQ_{supp} = .32**	$DASS_{dep}$ = -.18*	ERP_{exp_md} = .18*	$DERS_{clar}$ = .22**	ERP_{st_sel} = -.22**	ERQ_{supp} = .26**	$DERS_{strat}$ = -.21*	$DERS_{impulse}$ = .27**	ERQ_{supp} = -.20*	RAS = .30**	$DASS_{dep}$ = .18*
$DASS_{str}$ = -.19*			$DERS_{n\_ac}$ = .19*		$DERS_{goals}$ = .19*	$DERS_{total}$ = -.17*	$DERS_{clar}$ = .18*	RAS = .19*		$DASS_{anx}$ = .20*
			$DASS_{anx}$ = .20*			RAS = .21*	$DERS_{n\_ac}$ = .20*	$DASS_{dep}$ = -.22**		
			$DASS_{str}$ = .21*			$DASS_{dep}$ = -.18*	$DERS_{total}$ = .20*			
							ERP_{st_mod} = -.22**			
							ERP_{cog_ch} = -.23**			
							ERP_{ant_ER} = -.22**			
							$DASS_{anx}$ = .17*			

Note. $DERS_{clar}$=clarity subscale of the DERS-16, $DERS_{goals}$=goals subscale of the DERS-16, $DERS_{impulse}$=impulse subscale of the DERS-16, $DERS_{n\_ac}$=non-acceptance subscale of the DERS-16, $DERS_{strat}$=strategies subscale of the DERS-16, $DERS_{total}$=total score of the DERS-16; ERQ_{reappr}=reappraisal subscale of the ERQ, ERQ_{supp}=suppression subscale of the ERQ; ERP_{st_sel}=situation selection subscale of the ERP, ERP_{st_mod}=situation modification subscale of the ERP, ERP_{cog_ch}=cognitive change subscale of the ERP, ERP_{beh_md}=behavioral response modulation subscale of the ERP, ERP_{phys_md}=physiological response modulation subscale of the ERP, ERP_{ant_ER}=antecedent-focused ER of the ERP, RAS=total score of the RAS; $DASS_{dep}$=depression subscale of the DASS-21, $DASS_{anx}$=anxiety subscale of the DASS-21, $DASS_{str}$=stress subscale of the DASS-21.

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

The relationships between the strategies included in the ERI-RF with self-report measures of other ER strategies were then examined, the correlation coefficients of which can be seen in Table 2. For instance, frequency of use of the situation selection strategy in the ERI-RF was associated with the ERQ suppression subscale for all three emotions ($r=.27$, $r=.25$ and $r=.32$ for anxiety, sadness and anger, respectively). Moreover, the ERI-RF frequency of use of the social support-seeking strategy for all three emotions was negatively correlated with the ERQ suppression subscale ($r=-.23$, $r=-.20$ and $r=-.20$, respectively), and the ERI-RF perceived extrinsic regulation of the partner for anxiety and sadness were also negatively correlated with the ERQ suppression subscale ($r=-.18$ and $r=-.20$, respectively). The ERI-RF frequency of use of the situation selection strategy for anxiety and sadness was associated with the DERS-16 clarity subscale ($r=.23$ and $r=.25$, respectively); for sadness, the ERI-RF frequency of use of the attentional deployment strategy was correlated with the DERS-16 clarity subscale ($r=.19$); the ERI-RF frequency of use of the suppression strategy was correlated with the DERS-16 non-acceptance subscale ($r=.20$); and the ERI-RF frequency of use of the cognitive change strategy was negatively correlated with the DERS-16 strategies subscale ($r=-.22$). For anger, the ERI-RF frequency of use of the rumination and response modulation strategy was associated with the DERS-16 clarity ($r=.22$ and $r=.18$, respectively) and non-acceptance ($r=.19$ and $r=.20$, respectively) subscales, while the ERI-RF frequency of use of the relaxing body strategy was negatively correlated with the DERS-16 strategies subscale ($r=-.21$).

The correlations between the ER strategies included in the ERI-RF with related constructs (i.e., relationship satisfaction, and psychological symptoms) were also examined for validity, for which the correlation coefficients are presented in Table 2. Some of the correlations were as follows: the ERI-RF frequency of use of the social support-seeking strategy and perceived extrinsic regulation of the partner (as interpersonal ER strategies) for all three emotions were associated with the RAS ($r=.24$ and $r=.30$ for anxiety, $r=.17$ and $r=.18$ for sadness, $r=.19$ and $r=.30$ for anger, respectively). On the other hand, the ERI-RF frequency of use of the situation selection strategy for anxiety and sadness was negatively correlated with the RAS ($r=-.20$ and $r=-.20$, respectively). Moreover, the ERI-RF frequency of use of the situation selection strategy for anxiety was associated with the DASS-21 anxiety ($r=.20$) and stress ($r=.20$) subscales. The ERI-RF frequency of use of the situation modification strategy for anxiety, the cognitive change strategy for sadness and the relaxing body strategy for anger were also associated with the RAS ($r=.21$, $r=.23$ and $r=.21$, respectively). Furthermore, the ERI-RF frequency of use of the situation modification strategy for anger was negatively correlated with the DASS-21 depression ($r=-.18$) and stress ($r=-.19$) subscales. Lastly, the ERI-RF frequency of use of the acceptance strategy for anger was associated with the DASS-21 depression ($r=.18$) and anxiety ($r=.20$) subscales.

Based on the relationships identified in current literature, the correlations within the subscales of the ERI-RF for each emotion were examined separately for three emotional states, and expected associations were identified between some ER strategies (see Table 3). Accordingly, frequency of use of the situation selection and suppression strategies were associated for all three emotions ($r=.22$, $r=.28$ and $r=.39$ for anxiety, sadness and anger, respectively). For anxiety and sadness, frequency of use of the suppression and social support-seeking strategies were negatively correlated ($r=-.51$, and $r=-.32$, respectively), while social support-seeking and perceived extrinsic regulation of the partner was positively correlated ($r=.43$ and $r=.42$, respectively). For anger, frequency of use of the rumination and cognitive change strategies were negatively correlated ($r=-.20$).

Table 3. Associations among the ERI-RF strategies

	1	2	3	4	5	6	7	8	9	10	11
1. Situation selection	-										
2. Situation modification	-.05 -.02 -.03	-									
3. Attentional deployment	.41** .02 .03	-.07 -.10 .07	-								
4. Rumination	-.09 .03 .02	.15 .12 .04	-.11 -.01 -.07	-							
5. Cognitive change	.09 -.07 -.10	.10 .05 .15	.09 -.01 .13	-.15 -.05 -.20*	-						
6. Suppression	.22* .28** .39**	-.08 -.07 -.03	.07 .26** .11	-.02 -.08 -.05	.07 -.12 .14	-					
7. Relaxing body	-.10 -.06 .03	.17* -.05 .24**	-.06 .01 .12	.11 .02 -.03	.00 .03 .14	-.07 -.06 .11	-				
8. Response modulation	-.11 .12 .14	.00 .14 .05	-.03 .06 .03	.02 .05 .17*	-.18* -.04 -.11	.03 .10 .18*	-.05 .20* .08	-			
9. Social support-seeking	-.18* -.24** -.23**	.24** .17* .19*	-.05 .00 -.15	.17* .19* .10	-.01 .16 -.13	-.51** -.32** -.13	.19* .05 .16	.04 -.12 -.12	-		
10. Extrinsic regulation	-.23** .02 .02	-.00 .01 .04	.08 .03 .07	-.00 -.05 -.12	.06 .11 .00	-.39** -.06 .03	.18* -.01 .20*	.05 -.10 .06	.43** .42** -.02	-	
11. Acceptance	.08 .04 -.10	-.02 .03 -.09	-.08 .02 -.08	.14 .03 .10	-.04 -.07 -.06	.06 .21* -.19*	.20* -.15 -.15	-.17* -.05 -.04	-.17* -.21* .00	-.05 -.08 -.11	-

Note. The correlation coefficients in each cell are for anxiety, sadness and anger, respectively.
*p<.05, **p<.01

For the reliability analysis of the ERI-RF, test-retest reliability was assessed as it was in the original ERI study (Werner et al., 2011), due to the nature of the interview form and content. The test-retest reliability and time stability were examined by reapplying the ERI-RF to 31 of the participants 4 to 10 weeks (*M*=7 weeks) after the first interview. In the interest of simplicity and clarity, any associations between the frequencies of the strategies identified during the two interviews were examined with correlation analyses. The test-retest correlation coefficients were as follows: .47 for the rumination strategy in situations evoking anxiety; .69 for the situation selection, .35 for the suppression, and .35 for the relaxing body strategies in situations evoking sadness; and .49 for the situation selection, .60 for the cognitive change, .47 for the suppression, .36 for the relaxing body, and .44 for the response modulation strategies in situations evoking anger in the romantic relationship. To evaluate the consistency of the emotion levels, the relationship between the intensity of emotion reported by the participants for the situations in which they experienced the target emotion in the first and second interviews was also examined, and no relationships were identified between the anxiety and sadness levels recorded during the first and second interviews, while there an association was noted between the anger levels (r=.40, p<.05).

Discussion

In the present study, the ERI, which assesses ER through an interview approach to eliminate some of the limitations associated with self-report measures, was adapted to Turkish, and its scope was expanded, and an examination was then made of the psychometric properties of the resulting ERI-RF. The ERI, which was used for the first time by Werner et al. (2011) for the assessment of ER in social anxiety, was revised to include the emotions that are the most experienced and regulated in daily life and in interpersonal relationships, such as romantic relationships (i.e., anxiety, sadness, and anger) (Gross et al., 2006; Heiy & Cheavens, 2014). The ERI-RF was developed by making additions to the ER strategies in the ERI in accordance with the process model and interpersonal ER, and by extending and standardizing the efficacy measure for all of the ER strategies. Considering that emotions and ER mostly occur in close relationships (Gross et al., 2006; Planalp, 1999), the interview form was adapted to Turkish for the anxiety, sadness and anger emotions experienced in romantic relationships, which are considered to be the most salient observed in the interpersonal relationships formed by adults (Whisman & Baucom, 2012).

In order to evaluate the validity of the ERI-RF, the associations between the use frequency of the ER strategies included within the ERI-RF, and the subscales of the self-report measures that assess the same or similar strategies, were first investigated, and some significant associations were identified. For example, the

ERI-RF frequency of use of the suppression strategy was associated with the ERQ suppression subscale for all three emotions. For sadness, significant relationships were noted between the ERI-RF frequency of use of the situation modification strategy and the ERP situation modification subscale; and between the ERI-RF frequency of use of the cognitive change strategy and the ERP cognitive change and ERQ reappraisal subscales. In contrast, no similar relationships could be identified for some of the ERI-RF strategies.

As mentioned previously, in self-report measures that assess ER, the addressed situation and emotion are somewhat vague (Lee et al., 2017). It is thus considered that self-report measures generally evaluate not the actual condition, but the tendency to use certain ER strategies, and assume that the participants use the reported strategies across time (Aldao et al., 2010), and on the whole, they do not generally include a real time frame. On the other hand, the addressed situations and emotions are specific, and include a time frame, which is one month in the ERI-RF. There is the possibility that the participants may misunderstand the exact content of the ER strategies in self-report measures. In the ERI-RF, however, examples are provided for each ER strategy, and if the participants report having used the stated strategy, the interviewer asks in what way they used the strategy to ensure they are referring to the target ER strategy, allowing any misunderstandings to be corrected. The difference in the assessment method may have led to a lack of associations in some ER strategies with the related self-report measures. That said, given the emphasis on the contextual use of ER strategies (Aldao, 2013; Bridges et al., 2004), and the fact that self-report measures assess general use, this can be considered an expected result. Although it is essential to consider the use of ER strategies in a contextual and flexible manner, the association between certain ER strategies (e.g., situation modification, cognitive change, and suppression) and such traits as personality characteristics in some studies (e.g., Gross & John, 2003; Purnamaningsih, 2017) may explain the relationships between some of the ER strategies included in the ERI-RF with the self-report measures assessing the same strategy in the present study.

Aside from examining the associations between the strategies in the ERI-RF and the relevant subscales of self-report measures evaluating the same strategies, the study also assessed the relationships between the ERI-RF strategies and the other ER strategies included in self-report measures, the difficulties in ER and other related constructs for validity. These identified relationships are in some way consistent with those in previous literature. To illustrate, the ERI-RF frequency of use of the situation selection strategy was associated with the ERQ suppression subscale for all three emotions, since both strategies include avoidance. Moreover, the ERI-RF frequency of use of the social support-seeking strategy was negatively associated with the ERQ suppression subscale for all three emotions. For anxiety and sadness, the perceived extrinsic regulation of the partner included in the ERI-RF was also negatively associated with the ERQ suppression subscale. In other words, as the tendency to suppress the expression of emotion increases when anxiety, sadness, and

anger are experienced in the romantic relationship, seeking support from the partner, which may also include emotional expression (Carver et al., 1989), decreases. As the suppression increases, the perceived extrinsic regulation of the partner also decreases. The perceived support of the partner may be low, depending on such factors as the attachment orientation (Simpson & Rholes, 2012), and the likelihood of the partner offering support may also diminish due to a lack of expression. This may be related to the rigid and negative cycle used to conceptualize problems between couples in various approaches, such as emotionally focused couple therapy (Johnson, 2004).

For the anxiety and sadness experienced in romantic relationships, the ERI-RF frequency of use of the situation selection strategy was associated with the DERS-16 clarity subscale. The ERI-RF frequency of use of the attentional deployment strategy was also associated with the DERS-16 clarity subscale for sadness. In other words, as the difficulty experienced of emotional clarity increases, avoiding situations that evoke anxiety and sadness in romantic relationships, and distracting attention from situations that evoke sadness experienced in a relationship also increases. Research has shown that individuals who have difficulty in identifying and defining their emotions tend to avoid emotions or shift their attention elsewhere due to their confusion (e.g., Gohm, 2003; Kerns & Berenbaum, 2010).

For the anger experienced in a romantic relationship, the ERI-RF frequency of use of the rumination and response modulation strategy was associated with the DERS-16 clarity and non-acceptance subscales. In other words, as the difficulty in identifying and defining emotions or accepting emotional responses increases, ruminating about the situation or other elements associated with anger, as well as such substance use as smoking and drinking alcohol, and self-harm or eating, also increase when individuals experience anger in their relationships. Previous studies have reported that rumination can also function as a strategy for making sense of emotions when there is a lack of emotional clarity (Vine et al., 2014). Smoking and drinking alcohol are reported to be related with low emotional clarity (Dvorak et al., 2014; Faulkner et al., 2020), while studies have also shown that non-acceptance of emotional responses is related with self-harm behavior (Wolff et al., 2019). The ERI-RF frequency of use of the suppression strategy was also associated with the DERS-16 non-acceptance subscale for sadness. Thus, as the tendency of emotional non-acceptance increases, the suppression of the expression of sadness also increases. Emotional acceptance implies a willingness to experience emotions, even if they are negative (Campbell-Sills et al., 2006), as otherwise, the expression can be expected to be suppressed. Research shows that there is a negative relationship between non-acceptance of emotional responses and emotional expressions, in other words, as the tendency to non-acceptance increases, attempt to express emotions decreases (Gratz & Roemer, 2004).

Furthermore, for anger the ERI-RF relaxing body strategy, and for sadness the ERI-RF cognitive change strategy use frequencies were negatively associated with the DERS-16 strategies subscale. That is to say, as the difficulties in accessing

effective strategies decreases, attempts to relax the body increase when experiencing anger in romantic relationships. Although the anger response can be considered functional as it provides intimacy (Bowlby, 1973), relaxing the body as a means of reducing anger may be adaptive, since anger can be destructive in various ways when not effectively controlled and shown though hostile behavior in interpersonal relationships such as couple relationships (Liu et al., 2018). The relaxing body strategy was consistently found to be one of the most effective strategies for the reduction of anger, and was associated with relationship satisfaction in the present study. As difficulties in accessing effective strategies decreases, attempts to reduce sadness through trying to assess the situation differently increases. The cognitive change strategy is considered to be a functional ER strategy in various contexts (e.g., Beck, 1976; Gross & John, 2003), and may also be an effective means of regulating sadness in romantic relationships. Similarly, the cognitive change strategy was one of the most effective strategies for reducing sadness, and was found to be associated also with relationship satisfaction in the present study.

As mentioned previously, examining the relationships between the ER strategies included in the ERI-RF alongside self-report measures evaluating other ER strategies or difficulties in ER, while also examining the associations with other related constructs, has contributed to the validity of the present study. Accordingly, the associations between the frequency of use of the ER strategies and relationship satisfaction and psychological symptoms were also examined, and results that concurred with previous studies were obtained. It is worthy of note that the social support-seeking strategy and the perceived extrinsic regulation of the partner, which considers interpersonal ER strategies in the ERI-RF, was associated with relationship satisfaction for all three emotions. Attachment-based approaches in particular, such as the Emotionally Focused Couple Therapy (Greenberg & Johnson, 1988; Johnson & Greenberg, 1985) and the Attachment Diathesis-Stress Process Model (Simpson & Rholes, 2012), agree that sharing emotions and seeking support from one's partner, or perceived partner support, contribute to relational and subjective well-being (Johnson & Greenberg, 1988; Simpson & Rholes, 2012). Moreover, for anxiety and sadness, the ERI-RF frequency of use of the situation selection strategy was negatively associated with relationship satisfaction. In other words, trying to avoid the emergence of these emotions in a relationship actually affects relationship satisfaction negatively. Similarly, for anxiety experienced in a romantic relationship, the ERI-RF frequency of use of the situation selection strategy was also associated with anxiety and stress. Considering all these findings, the tendency to avoid situations that evoke negative emotions is paradoxically related to negative results. In other words, trying to avoid situations that can cause this type of emotions may have a paradoxical effect, with negative emotions tending to increase for those adopting such a strategy. In related literature, it is stated that avoidance is related to maladaptive and negative results in a wide variety of contexts (e.g., Hayes, Bissett, et al., 1999; Mowrer, 1939). On the other hand, the ERI-RF frequency of use

of the situation modification strategy was associated with relationship satisfaction for anxiety, and negatively associated with depression and stress for anger experienced in romantic relationships in the present study. That is to say, since avoiding situations that can bring about such feelings is associated with negative consequences, attempting to change these situations may be more functional due to the increase in positive and the decrease in negative results.

Lastly, for the anger experienced in romantic relationships, the ERI-RF frequency of use of the acceptance strategy was associated with depression and anxiety. While the use of the acceptance strategy is considered to be functional when it is not possible to change the emotion or related situation in general (Berking & Whitley, 2014), such a strategy should be used only with caution, since the consequences could be negative in the case of emotions such as anger, and may have disruptive effects if not handled properly (DiGiuseppe & Tafrate, 2007). Since the acceptance strategy refers to experiencing emotions without attempting to change, control or avoid them (Campbell-Sills et al., 2006; Hayes, Strosahl, & Wilson, 1999), the use of the acceptance strategy when experiencing anger may reinforce the anger experience, along with such cognitive processes as self-blame or blaming others that are associated with anger (Martin & Dahlen, 2005). Previous studies have revealed anger to be associated with anxiety and depression, and to have a negative effect on quality of life (e.g., Painuly et al., 2011; Sayar et al., 2000).

Based on the relationships between different ER strategies in current literature, associations among ER strategies included in the ERI-RF were also examined, and the expected findings were obtained. For example, the relationships between situation selection and suppression strategies for all three emotions were expected, in that both strategies are related to avoidance. For both anxiety and sadness, a negative relationship was identified between the suppression of emotional expression and hiding one's anxiety or sadness from one's partner, and seeking social support, and a positive relationship between seeking social support and perceived extrinsic regulation of the partner. These findings were also expected, in that it may be necessary to share one's emotions with one's partner when seeking support, and sharing one's emotions may increase the likelihood of obtaining the said support (Kennedy-Moore & Watson, 2001). For anger, the negative relationship between rumination and cognitive change strategies is also an expected result, since cognitive change is generally related to lower negative emotions such as anger (Gross, 1998a), while rumination may further exacerbate anger due to the focus on situation-related elements (Bushman, 2002; Ray et al., 2008). Aside from the expected associations between some ER strategies, the low correlation coefficients among other strategies are notable in terms of pointing out that the ER strategies included in the ERI-RF are different structures.

The test-retest reliability analysis of the ERI-RF revealed significant associations between the reported frequency of use of the same ER strategy in both applications, mostly in situations in which the participants experienced anger in their

relationships. Although a few significant relationships were noted related to situations in which the participants experienced anxiety or sadness, no significant results were obtained for many ER strategies. Self-report measures, previously mentioned as having several limitations, assess the participants' tendency of use of certain ER strategies, and thus assume that the participants act in this way to regulate their emotions in different contexts in time (Aldao et al., 2010). Similar to this perspective, considering certain ER strategies to be inherently adaptive or maladaptive is also related to a disregard of the context (Aldao, 2013; Bridges et al., 2004). In contrast, however, studies have shown that the ER or adaptive and maladaptive strategies vary from person to person, and even for the same person in different contexts, depending, for example, on the intensity of emotional situations (Aldao & Nolen-Hoeksema, 2012; Sheppes et al., 2011, 2014). Accordingly, it has been suggested that ER strategies should not necessarily be classified as adaptive or maladaptive by nature (Gross & Thompson, 2007), and that the use of certain ER strategies in a persistent and nonflexible manner, regardless of the context, may be associated with psychopathology (Campbell-Sills & Barlow, 2007). In other words, while the ER strategies used in daily life may vary depending on the context, the rigid, persistent and non-contextual use of some ER strategies over time has been linked to psychopathology. Thus, although the test-retest coefficients for many of the ER strategies in the original study involving individuals with social anxiety disorders were significant, the findings obtained in the present study that did not involve a psychopathology group were to be expected. Moreover, even though the emotions addressed in the two applications were the same, the context in which these emotions arose was different. The use of ER strategies has been evaluated for different situations, since there was at least one month between the two applications. When the intensity of emotions associated with these situations was examined, as one of the contextual factors associated with the use of ER strategies (Sheppes et al., 2011, 2014) to assess the consistency, no relationship was noted between the two applications for anxiety and sadness levels, while the anger levels reported in the first and second interviews were found to be associated. This finding may provide an explanation for being found the significant test-retest coefficients mostly for anger.

The descriptive statistics of the ER strategies, which include frequency of use and efficacy in decreasing the target emotions in situations evoking anxiety, sadness or anger, as reported by the participants, revealed some prominent strategies. For example, it has been reported that rumination and situation modification strategies were the most frequently used strategies for the regulation of all three emotions. In other words, when negative emotions were experienced in a romantic relationship, the participants tended to focus on emotion-related situations, thoughts and feelings repeatedly, and to try to resolve the problem or conflict by changing the situation in which these negative emotions emerge. These strategies, however, may have a different effect on the target emotion, as well as may be considered as an

attempt to make sense of and change the situation. Situation modification, therefore, can be used frequently as a practical strategy since it can provide understanding and support the resolution of the conflict. As mentioned previously, in some cases the rumination strategy can also support the person in making sense of the situation (Vine et al., 2014), and so may be used frequently in situations where it is difficult to understand emotions. As a further important finding, the cognitive change strategy was one of the most frequently used by participants when experiencing anxiety and sadness in romantic relationships, but less frequently when experiencing anger. Sometimes the emergence of anger as a means of concealing more fragile emotions in interpersonal relationships, especially in couple relationships (Greenberg & Johnson, 1988; Johnson, 2004), may hinder the use of different approaches to the situation.

The efficacy ratings of ER strategies in reducing target emotions showed that extrinsic regulation, which involves the regulation of emotion by the partner, is one of the most effective strategies for all three emotions, followed by seeking support from one's partner. In line with numerous perspectives of the conflicts that occur in couple relationships, sharing emotions with and seeking or receiving support from one's partner are associated with positive results (Johnson & Greenberg, 1988; Simpson & Rholes, 2012). In the present study, the efficacy of these strategies in reducing the negative emotions experienced in romantic relationships supports this perspective. Furthermore, the situation modification strategy has been reported to be effective in reducing anxiety in romantic relationships, while the cognitive change strategy has been found to be effective in reducing the all three negative emotions. Regardless of the context, anxiety is generally associated with uncertainty about unwanted situations that may occur in the future (Barlow, 2000). In the present study, the situations in which the participants experienced anxiety about their relationships were gathered around the emotions, thoughts and behaviors of their partners in the future, or their perceived uncertainty regarding the future of their relationship. As such, attempting to change the situation may be effective in reducing anxiety by decreasing the perceived risk. As was expected, the cognitive change strategy was effective in reducing all three negative emotions, since evaluations are directly related to the emergence of all emotions. This result indicates that the cognitive change strategy is effective in decreasing negative emotion also when/if used for anger, although it has been reported to be used most frequently in situations evoking anxiety and sadness in the relationship, and less so for anger, due to its nature. Lastly, although rumination is one of the most frequently used ER strategies for the three negative emotions, it has been shown to be the least effective for the reduction of target emotions. Heiy and Cheavens' (2014) study also reported rumination to be one of the most frequently used strategies in daily life, but not one of the most effective in reducing emotions. In the present study, 65 percent of the participants reported that using this strategy led to an increase in all three emotions. There are previous studies that also report

these kinds of effects with rumination (Bushman, 2002; Nolen-Hoeksema, 2000; Ray et al., 2008). This finding is important in showing that although it used frequently in daily life, the rumination strategy can increase negative emotions further, and have a detrimental effect on well-being. Similarly, using the rumination strategy when experiencing anger in a romantic relationship was found to be associated with anxiety and stress in the present study.

In conclusion, the ERI-RF, as a revised version of the ERI that expands its scope in various aspects, can be said to have sufficient psychometric properties while providing solutions to the limitations associated with self-report tools, and offers some advantages over the original form. These include diversifying the emotions addressed in the interview, adding other strategies that are compatible with the process model and the interpersonal ER, and evaluating the efficacy of all strategies in a consistent manner. Furthermore, the comparatively larger sample size in the present study than in similar studies in which the interview method was adopted can be considered one of its strengths.

That said, there are several limitations to the present study. The inclusion of only negative emotions, despite expanding on the range of emotions in the ERI, may restrict the implications of the study, and so further studies should address also the regulation of the positive emotions (Gross, 2008) that constitute foundation of intimate relationships among couples (Levenson et al., 2014). In order to evaluate the test-retest reliability of the ERI-RF, the second interviews were administered at least 4 weeks after the first interview, and the process was extended to 10 weeks so as to increase the participation rate by giving the participants time to attend the second application. However, since the context of the situations addressed in the two interviews were different from each other, low or non-significant results were obtained for some of the ER strategies. Furthermore, although the interview approach can provide a more reliable assessment of the actual use of ER strategies than self-report measures, it should be noted that participants may avoid reporting the use of some strategies (e.g., response modulation strategy which includes substance use and/or self-medication and/or self-harm and/or eating). Accordingly, alternative approaches to the detailed examination of these dimensions should be devised. Lastly, while the focus of the present study was couples, further studies involving various groups diagnosed with specific psychopathologies may yield important information about the different uses of ER strategies.

Conflict of interest

No potential conflict of interest was reported by the authors.

References

Aka, B. T. (2011*). Perceived parenting styles, emotion recognition, and emotion regulation in relation to psychological well-being: symptoms of depression, obsessive-compulsive disorder, and social anxiety* (Unpublished doctoral dissertation). Middle East Technical University, Ankara, Turkey.

Aldao, A. (2013). The future of emotion regulation research: Capturing context. *Perspectives on Psychological Science, 8*(2), 155-172.

Aldao, A., & Nolen-Hoeksema, S. (2010). Specificity of cognitive emotion regulation strategies: A transdiagnostic examination. *Behaviour Research and Therapy, 48*(10), 974–983.

Aldao, A., & Nolen-Hoeksema, S. (2012). The influence of context on the implementation of adaptive emotion regulation strategies. *Behaviour Research and Therapy, 50*(7-8), 493-501.

Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*(2), 217-237.

Andersen, P. A., & Guerrero, L. K. (1998). Principles of communication and emotion in social interaction. In P. A. Andersen & L. K. Guerrero (Eds.), *Handbook of communication and emotion: Research, theory, applications, and contexts* (pp. 49–96). Academic Press.

Barlow, D. H. (2000). Unraveling the mysteries of anxiety and its disorders from the perspective of emotion theory. *American Psychologist, 55*(11), 1247–1263.

Beck, A. T. (1976). *Cognitive therapy and the emotional disorders.* New York: International University Press.

Berking, M. & Whitley, B. (2014). *Affect Regulation Training: A Practitioners Manual.* New York: Springer.

Bjureberg, J., Ljótsson, B., Tull, M. T., Hedman, E., Sahlin, H., Lundh, L. G., ... & Gratz, K. L. (2016). Development and validation of a brief version of the difficulties in emotion regulation scale: the DERS-16. *Journal of Psychopathology and Behavioral Assessment, 38*(2), 284-296.

Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation: Anxiety and anger.* New York: Basic Books.

Bridges, L. J., Denham, S. A., & Ganiban, J. M. (2004). Definitional issues in emotion regulation research. *Child Development, 75*(2), 340-345.

Bushman, B. J. (2002). Does venting anger feed or extinguish the flame? Catharsis, rumination, distraction, anger, and aggressive responding. *Personality and Social Psychology Bulletin, 28*(6), 724-731.

Campbell-Sills, L., & Barlow, D. H. (2007). Incorporating Emotion Regulation into Conceptualizations and Treatments of Anxiety and Mood Disorders. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 542–559). The Guilford Press.

Campbell-Sills, L., Barlow, D. H., Brown, T. A., & Hofmann, S. G. (2006). Effects of suppression and acceptance on emotional responses of individuals with anxiety and mood disorders. *Behaviour Research and Therapy, 44*(9), 1251-1263.

Carthy, T., Horesh, N., Apter, A., Edge, M. D., & Gross, J. J. (2010). Emotional reactivity and cognitive regulation in anxious children. *Behaviour Research and Therapy, 48*(5), 384-393.

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267-283.

Curun, F. (2001). *The effects of sexism and sex role orientation on relationship satisfaction* (Unpublished master's thesis). Middle East Technical University, Ankara, Turkey.

DiGiuseppe, R., & Tafrate, R. C. (2007). *Understanding anger disorders.* Oxford University Press.

Dvorak, R. D., Sargent, E. M., Kilwein, T. M., Stevenson, B. L., Kuvaas, N. J., & Williams, T. J. (2014). Alcohol use and alcohol-related consequences: Associations with emotion regulation difficulties. *The American Journal of Drug and Alcohol Abuse, 40*(2), 125-130.

Faulkner, P., Dean, A. C., Ghahremani, D. G., & London, E. D. (2020). Neural basis of smoking-related difficulties in emotion regulation. *International Journal of Neuropsychopharmacology, 23*(7), 409-416.

Gohm, C. L. (2003). Mood regulation and emotional intelligence: Individual differences. *Journal of Personality and Social Psychology, 84*(3), 594-607.

Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotional regulation and dysregulation: Development, factor structure, and initial validation of the difficulties in emotional regulation scale. *Journal of Psychopathology and Behavioral Assessment, 26*(1), 41-54.

Greenberg, L. S. & Johnson, S. M. (1988). *Emotionally focused therapy for couples.* New York: Guilford Press.

Gross, J. J. (1998a). Antecedent-and response-focused emotion regulation: Divergent consequences for experience, expression, and physiology. *Journal of Personality and Social Psychology, 74*(1), 224-237.

Gross, J. J. (1998b). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*(3), 271-299.

Gross, J. J. (1999). Emotion regulation: Past, present, future. *Cognition & Emotion, 13*(5), 551-573.

Gross, J. J. (2008). Emotion regulation. In M. Lewis, J. M. Haviland-Jones, & L. F. Barrett (Eds.), *Handbook of emotions* (3rd Ed.) (pp. 497-512). New York: The Guilford Press.

Gross, J. J. (2014). Emotion regulation: Conceptual and empirical foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (2nd Ed.) (pp. 3–20). Guilford Press.

Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1–26.

Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology, 85*(2), 348-362.

Gross, J. J., Richards, J. M., & John, O. P. (2006). Emotion regulation in everyday life. In D. K. Snyder, J. Simpson, & J. N. Hughes (Eds.), *Emotion regulation in couples and families: Pathways to dysfunction and health* (pp. 13–35). American Psychological Association.

Gross, J. J., & Thompson, R. A. (2007). Emotion regulation: Conceptual foundations. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 3–24). The Guilford Press.

Hayes, S. C., Bissett, R. T., Korn, Z., Zettle, R. D., Rosenfarb, I. S., Cooper, L. D., & Grundt, A. M. (1999). The impact of acceptance versus control rationales on pain tolerance. *The Psychological Record, 49*(1), 33-47.

Hayes, S. C., Strosahl, K. D., & Wilson, K. G. (1999). *Acceptance and commitment therapy: An experiential approach to behavior change.* New York: Guilford Press.

Heiy, J. E., & Cheavens, J. S. (2014). Back to basics: a naturalistic assessment of the experience and regulation of emotion. *Emotion, 14*(5), 878-891.

Hendrick, S. S. (1988). A generic measure of relationship satisfaction. *Journal of Marriage and Family, 50*, 93-98.

Henry, J. D., & Crawford, J. R. (2005). The short-form version of the Depression Anxiety Stress Scales (DASS-21): Construct validity and normative data in a large non-clinical sample. *British Journal of Clinical Psychology, 44*(2), 227-239.

Hofmann, S. G. (2014). Interpersonal emotion regulation model of mood and anxiety disorders. *Cognitive Therapy and Research, 38*(5), 483-492.

Hofmann, S. G., Carpenter, J. K., & Curtiss, J. (2016). Interpersonal emotion regulation questionnaire (IERQ): Scale development and psychometric characteristics. *Cognitive Therapy and Research, 40*(3), 341-356.

John, O. P., & Gross, J. J. (2007). Individual differences in emotion regulation. In J. J. Gross (Ed.), *Handbook of emotion regulation* (pp. 351–372). New York: Guilford.

Johnson, S. M. (2004). *The practice of emotionally focused couple therapy: Creating connection* (2nd ed.). New York: Brunner-Routledge.

Johnson, S. M., & Greenberg, L. S. (1985). Differential effects of experiential and problem-solving interventions in resolving marital conflict. *Journal of Consulting and Clinical Psychology, 53,* 175–184.

Johnson, S. M., & Greenberg, L. S. (1988). Relating process to outcome in marital therapy. *Journal of Marital and Family Therapy, 14*, 175–183.

Kennedy-Moore, E., & Watson, J. C. (2001). How and when does emotional expression help?. *Review of General Psychology, 5*(3), 187-212.

Kerns, J. G., & Berenbaum, H. (2010). Affective processing in overwhelmed individuals: Strategic and task considerations. *Cognition & Emotion, 24*(4), 638-660.

Kring, A. M., & Sloan, D. M. (Eds.). (2010). *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment.* New York, NY: Guilford.

Lee, D. J., Weathers, F. W., Sloan, D. M., Davis, M. T., & Domino, J. L. (2017). Development and initial psychometric evaluation of the semi-structured emotion regulation interview. *Journal of Personality Assessment, 99*(1), 56-66.

Levenson, R. W. (1999). The intrapersonal functions of emotion. *Cognition & Emotion, 13*(5), 481-504.

Levenson, R. W., Haase, C. M., Bloch, L., Holley, S. R., & Seider, B. H. (2014). Emotion regulation in couples. In J. J. Gross Ed.), *Handbook of emotion regulation* (2nd Ed.) (pp. 267-283). New York: The Guilford Press.

Liu, J., Lemay Jr, E. P., & Neal, A. M. (2018). Mutual cyclical anger in romantic relationships: Moderation by agreeableness and commitment. *Journal of Research in Personality, 77,* 1-10.

Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the depression anxiety stress scales (DASS) with the beck depression and anxiety inventories. *Behaviour Research and Therapy, 33*(3), 335-343.

Martin, R. C., & Dahlen, E. R. (2005). Cognitive emotion regulation in the prediction of depression, anxiety, stress, and anger. *Personality and Individual Differences, 39*(7), 1249-1260.

Moore, S. A., Zoellner, L. A., & Mollenholt, N. (2008). Are expressive suppression and cognitive reappraisal associated with stress-related symptoms?. *Behaviour Research and Therapy, 46*(9), 993-1000.

Mowrer, O. H. (1939). A stimulus-response analysis of anxiety and its role as a reinforcing agent. *Psychological Review, 46*(6), 553-565.

Myers, E. A. (1996). *Emotion regulation in couple relationships* (Unpublished master's thesis). The University of Montana, Montana, U.S.

Niven, K., Totterdell, P., Stride, C. B., & Holman, D. (2011). Emotion Regulation of Others and Self (EROS): The development and validation of a new individual difference measure. *Current Psychology, 30*(1), 53-73.

Nolen-Hoeksema, S. (2000). The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. *Journal of Abnormal Psychology, 109*(3), 504-511.

Oatley, K., & Duncan, E. (1992). Incidents of emotion in daily life. In K. T. Strongman (Ed.), *International review of studies on emotion, Vol. 2* (pp. 249–293). John Wiley & Sons.

Oatley, K., & Duncan, E. (1994). The experience of emotions in everyday life. *Cognition & Emotion, 8*(4), 369-381.

Painuly, N. P., Grover, S., Gupta, N., & Mattoo, S. K. (2011). Prevalence of anger attacks in depressive and anxiety disorders: implications for their construct?. *Psychiatry and Clinical Neurosciences, 65*(2), 165-174.

Peña-Sarrionandia, A., Mikolajczak, M., & Gross, J. J. (2015). Integrating emotion regulation and emotional intelligence traditions: a meta-analysis. *Frontiers in Psychology, 6,* 160.

Planalp, S. (1999). *Communicating emotion: Social, moral, and cultural processes.* Cambridge University Press.

Purnamaningsih, E. H. (2017). Personality and emotion regulation strategies. *International Journal of Psychological Research, 10*(1), 53-60.

Ray, R. D., Wilhelm, F. H., & Gross, J. J. (2008). All in the mind's eye? Anger rumination and reappraisal. *Journal of Personality and Social Psychology, 94*(1), 133-145.

Rimé, B. (2007). Interpersonal emotion regulation. In J. Gross (Ed.), *Handbook of emotion regulation* (pp. 466–485). New York, NY: Guilford Press.

Rugancı, R. N., & Gençöz, T. (2010). Psychometric properties of a Turkish version of the Difficulties in Emotion Regulation Scale. *Journal of Clinical Psychology, 66*(4), 442-455.

Sayar, K., Guzelhan, Y., Solmaz, M., Ozer, O. A., Ozturk, M., Acar, B., & Arikan, M. (2000). Anger attacks in depressed Turkish outpatients. *Annals of Clinical Psychiatry, 12*(4), 213-218.

Scherer, K. R., Matsumoto, D., Wallbott, H. G., & Kudoh, T. (1988). Emotional experience in cultural context: A comparison between Europe, Japan, and the United States. In K. R. Scherer (Ed.), *Facets of emotion: Recent research* (pp. 5–30). Lawrence Erlbaum Associates, Inc.

Schutte, N. S., Manes, R. R., & Malouff, J. M. (2009). Antecedent-focused emotion regulation, response modulation and well-being. *Current Psychology, 28*(1), 21-31.

Seligowski, A. V., Lee, D. J., Bardeen, J. R., & Orcutt, H. K. (2015). Emotion regulation and posttraumatic stress disorder: A meta-analysis. *Cognitive Behaviour Therapy, 44*(2)*,* 87-102.

Sheppes, G., Scheibe, S., Suri, G., & Gross, J. J. (2011). Emotion-regulation choice. *Psychological Science, 22*(11), 1391-1396.

Sheppes, G., Scheibe, S., Suri, G., Radu, P., Blechert, J., & Gross, J. J. (2014). Emotion regulation choice: A conceptual framework and supporting evidence. *Journal of Experimental Psychology: General, 143*(1), 163-181.

Simpson, J. A. & Rholes, W. S. (2012). Adult Attachment Orientations, Stress, and Romantic Relationships. In P. Devine & A. Plant (Eds.), *Advances in experimental social psychology* (Vol. 45, pp. 279-328). Burlington: Academic Press.

Totan, T. (2015). Validity and reliability of the Turkish Form of the Emotion Regulation Questionnaire (ERQ). *Journal of Cognitive-Behavioral Psychotherapy and Research, 3,* 153-161.

Vine, V., Aldao, A., & Nolen-Hoeksema, S. (2014). Chasing clarity: Rumination as a strategy for making sense of emotions. *Journal of Experimental Psychopathology, 5*(3), 229-243.

Werner, K. H., Goldin, P. R., Ball, T. M., Heimberg, R. G., & Gross, J. J. (2011). Assessing emotion regulation in social anxiety disorder: The emotion regulation interview. *Journal of Psychopathology and Behavioral Assessment, 33*(3), 346-354.

Whisman, M. A., & Baucom, D. H. (2012). Intimate relationships and psychopathology. *Clinical Child and Family Psychology Review, 15*(1), 4-13.

Wolff, J. C., Thompson, E., Thomas, S. A., Nesi, J., Bettis, A. H., Ransford, B., ... & Liu, R. T. (2019). Emotion dysregulation and non-suicidal self-injury: A systematic review and meta-analysis. *European Psychiatry, 59,* 25-36.

Wolpe, J. (1958). *Psychotherapy by reciprocal inhibition.* Palo Alto: Stanford University Press.

Yılmaz, Ö., Boz, H., & Arslan, A. (2017). The validity and reliability of Depression Stress and Anxiety Scale (DASS 21) Turkish short form. *Research of Financial Economic and Social Studies, 2*(2), 78-91.

Yiğit, İ., & Guzey Yiğit, M. (2019). Psychometric properties of Turkish version of difficulties in emotion regulation scale-brief form (DERS-16). *Current Psychology, 38*(6), 1503-1511.

Zaki, J., & Williams, W. C. (2013). Interpersonal emotion regulation. *Emotion, 13*(5), 803-810.