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Psychometric properties of the Turkish version of the Beliefs About Emotions Questionnaire (BAEQ) and a preliminary investigation in relation to emotion regulation

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Abstract

In this study, we examined the psychometric properties of the Beliefs About Emotions Questionnaire (BAEQ; Manser et al., 2012) for university students. A total of 436 Turkish university students aged between 18 and 29 took part in the study. To test the criterion validity of the scale, the relationships of the BAEQ factors with each other and with dispositional/trait mindfulness, self-compassion, intra and interpersonal emotion regulation strategies, and mental health variables were examined. The results showed that the data set confirmed the proposed factor structure for BAEQ with some modifications. Confirmatory factor analyses revealed adequate fit to the data, the internal consistency coefficients showed good internal consistencies, and evidence for criterion validity was obtained. Overall, results revealed that 37-item BAEQ is a valid and reliable measurement tool that can be used by emotion regulation researchers, and mental health practitioners.

Keywords: *Beliefs about emotions, emotion regulation, scale adaptation, mindfulness, self-compassion*

Despite the general distinction about the emotion regulation strategies and the negative psychological outcomes associated with the use of maladaptive emotion regulation strategies (e.g., expressive suppression, avoidance, rumination, self-blame and catastrophizing), the question why some individuals are more likely to use maladaptive emotion regulation strategies more than adaptive emotion regulation strategies (e.g., cognitive reappraisal, problem solving and acceptance) is yet to be answered (De Castella et al., 2013). One of the possibilities to answer this question is the beliefs that individuals hold about their emotions. According to this view, the negative beliefs that individuals hold about their emotions may shape the emotion regulation strategies that they use, and it ultimately may have negative consequences on the individual's mental health and well-being (Tamir, John, Srivastava, & Gross, 2007).

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Ford and Gross (2018) argue that beliefs about whether our emotions are "*good*" or "*bad*" play a key role in determining the direction of the emotion regulation, while beliefs about whether that emotion can be "*malleable*" could be contributing greatly to the realization of emotion regulation. Hence, beliefs about emotions can be one of the factors that influence whether individuals progress, and if they do, to what extent through the stages of the emotion generation process. These beliefs are likely to play a decisive role on individuals' emotional regulation success, and these successes or failures may affect long-term psychological outcomes, such as well-being and psychopathological symptoms. Indeed, results from the previous studies (e.g., De Castella et al., 2013; De Castella, Platow, Tamir, & Gross, 2017; Kneeland, Dovidio, Joormann, & Clark, 2016b; Tamir et al., 2007) support this assumption.

Specifically, Gross (2013) and Tamir et al. (2007) hypothesized that individuals who hold negative beliefs about malleability of emotions would be more likely to use antecedent-focused emotion regulation strategies (e.g., cognitive reappraisal), however, there would be no relationship between such beliefs and the use of response-focused emotion regulation strategies (e.g., expressive suppression) since it is possible to hide or suppress emotional expressions without changing the emotional experience. As expected, Tamir et al. (2007) found that the individuals who hold such negative beliefs, have lower emotion regulation self-efficacy, experience lower levels of emotional well-being, and use cognitive reappraisal less frequently in comparison to those who hold more positive beliefs. Other studies have supported their findings to a large extent (De Castella et al., 2013; Ford, Lwi, Gentzler, Hankin, & Mauss, 2018; Kneeland & Dovidio, 2020; Kneeland, Nolen-Hoeksema, Dovidio, & Gruber, 2016a; Schroder, Dawood, Yalch, Donnellan, & Moser, 2015). Taking these findings a step further, De Castella et al. (2013) showed that cognitive reappraisal mediates the relationship between such negative beliefs about emotions and psychological outcomes.

In another study, Schroder et al. (2015) demonstrated that individuals who hold negative beliefs about emotions use both cognitive reappraisal and expressive suppression less frequently than those who hold more positive beliefs about emotions. This finding suggests that individuals who hold negative beliefs about malleability of emotions may be making less effort for emotion regulation in general regardless of the distinction between different types of emotion regulation strategies. Furthermore, in contrast to previous findings, Trincas, Bilotta, and Mancini (2016) showed a positive relationship between negative beliefs regarding rationality and malleability of emotions and the use of expressive suppression. Therefore, future research is needed to clarify the possible link between negative beliefs about emotions and expressive suppression.

Considering that most of the studies focus only on cognitive reappraisal and expressive suppression, more research that focuses on different emotion regulation strategies are needed. For example, few studies have been conducted considering this gap suggest that individuals who hold such negative beliefs about emotions are more

likely to use behavioral/experiential avoidance and rumination strategies (De Castella et al., 2017; Kneeland & Dovidio, 2020; Trincas et. al., 2016) and less likely to use acceptance and problem-solving strategies (Trincas et al., 2016). Moreover, De Castella et al. (2017) also demonstrated that the experiential and behavioral avoidance play a mediating role in the relationship between beliefs about emotions and psychological health. Taken together, these findings suggest that individuals who hold more negative beliefs about emotions may be using more passive and maladaptive emotion regulation strategies while individuals who hold more positive beliefs about emotions may be using more adaptive and active emotion regulation strategies.

Despite the increasing popularity of interpersonal emotion regulation in the literature (Hofmann, 2014), to our knowledge, only one study has investigated the link between interpersonal emotion regulation strategies and beliefs about emotions. In this study, Veilleux et al. (2019) demonstrated that the individuals who hold negative beliefs about emotions such as "*emotions cannot be regulated/controlled*", "*emotions determine behaviors*" and "*emotions should not be expressed*" are also less likely to use interpersonal emotion regulation strategies. This finding supports the view that individuals who hold negative beliefs about emotions may be putting less effort for emotion regulation in general (Kneeland et al. 2016b). Taken together, it is believed that future studies that not only focus on intrapersonal but also interpersonal emotion regulation strategies will contribute to the literature by shedding light on the link between beliefs about emotions and psychological outcomes.

Although there are instruments in the literature that measure various aspects of emotion regulation, and contain various items about beliefs about emotions, most of them are related to expressing or controlling emotions, as opposed to measuring beliefs about emotions. For example, some of these are Young Schema Scale (Young, 1990), Distress Tolerance Scale (Simons & Gaher, 2005) and Beliefs about Emotions Scale (Rimes & Chalder, 2010), which are also used in Turkish literature. Moreover, although some other scales contain items about beliefs about emotions, they also contain items that do not originate from the theoretical models of emotional dysregulation and measure other dimensions such as one's willingness to express emotion or one's expectation regarding the duration of emotion. For instance, The Leahy Emotional Schema Scale (Leahy, 2002) examines some beliefs as to whether emotions are perceived as rational, shameful, valuable, but also include other factors that are not related to beliefs about emotions such as desire to express emotions, validation, and rumination. Similarly, although Acceptance and Action Questionnaire-II (Bond et al., 2011) contains several items about negative beliefs about emotions, it mainly focuses on measuring experiential avoidance.

Manser, Cooper, and Trefusis (2012) developed a valid and reliable self-report questionnaire to measure this construct. The Beliefs About Emotions Questionnaire (BAEQ; Manser et al., 2012), which is based on metacognition theory and measures implicit beliefs about emotions, has 43 items and 6 factors. These factors are *Overwhelming/Uncontrollable, Shameful/Irrational, Useless, Invalid/Meaningless,*

Contagious and *Damaging*. This study aims to adapt the BAEQ (Manser et al., 2012) into Turkish and further examine its psychometric properties in a Turkish sample of university students. It is believed that the Turkish version of the BAEQ will fill an important gap in the Turkish psychology literature since currently there is no multidimensional and a comprehensive measurement tool with a sound theoretical basis to measure the individual's beliefs about emotions. Moreover, adapting the BAEQ and bringing it into the Turkish literature will pave the way for new research regarding the role of implicit beliefs about emotions on people's tendency to select maladaptive and/or adaptive emotion regulation strategies and ultimately on their mental health.

METHOD

Participants

A total of 436 participants (390 females, 46 males) between ages of 18-29 were recruited via Google Forms. The link for the Google Forms was advertised throughout social media like Facebook and Twitter. Sample size was not predetermined with reference to effect size. There are different opinions regarding the minimum sample size required to perform factor analysis in the literature. For instance, Cattell (1978, as cited in MacCallum, Widaman, Zhang, & Hong, 1999), one of the researchers who argues that the required sample size will vary depending on the number of items in the measure, stated that a sample between 3 and 6 times the number of items in the measure is sufficient, whereas Gorsuch (1983) and Hair, Black, Babin, and Anderson (2010) both stated that it should be at least 5 times the number of items in the measure. Considering this information, after reaching to a sample size of 436 which is more than 10 times the number of items in the BAEQ, the data collection process was terminated. The mean age of the sample was 23.95 ($SD = 3.19$). Most of the sample (36.5%) was between the ages 26-29, followed by the ages of 22-25 (35.3%) and 18-21 (28.2%). Most of the sample (44.4%) was a master's degree student. This was followed by 2nd year undergraduate students (13.5%), 1st year undergraduate students (13.1%), doctorate degree students (12%), 4th year undergraduate students (9.6%), and 3rd year undergraduate students (9.6%).

Measures

Beliefs About Emotions Questionnaire (BAEQ)
BAEQ (Manser et al., 2012) is a 5-point Likert scale (1 = *strongly disagree*, 5 = *strongly agree*) that is developed to measure the negative beliefs that individuals hold about emotions. The scale consists of 43 items and 6 subscales. These subscales are "Overwhelming/Uncontrollable", "Shameful/Irrational", "Useless", "Invalid/ Meaningless", "Damaging" and "Contagious" respectively. Higher scores indicate higher levels of negative beliefs about emotions. In the original form of the scale,

Cronbach Alpha values of the sub-dimensions ranged between .69 and .88 (Manser et al., 2012).

Cognitive and Affective Mindfulness Scale – Revised (CAMS-R)

CAMS-R (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) is a 4-point rating scale (1 = *rarely/not at all*, 4 = *almost always*) that is developed to measure individuals' mindful attitudes towards their inner experiences. The scale consists of 10 items and 4 subscales (attention, present focus, awareness, acceptance). Feldman et al. (2007) suggest computing a single total mindfulness score instead of four subscale scores since the internal consistency of the total scale is higher than the internal consistency of individual subscales. The Turkish adaptation of the scale was carried out by Catak (2012) and Cronbach Alpha value of the Turkish version of the total scale was .77. In this study, Cronbach Alpha value of the total scale was .84.

Self-Compassion Scale – Short Form (SCS-SF)

SCS-SF (Raes, Pommier, Neff, & Van Gucht, 2011) is a 5-point Likert scale (1 = *almost never*, 5 = *almost always*) that is developed to measure how compassionate one is towards himself/herself in difficult times. The scale consists of 12 items. Parallel to the 26-item original scale developed by Neff (2003), the short form of the scale consists of 6 subscales and each of them is represented by two items. These subscales are self-judgment versus self-kindness, isolation versus common sense of humanity and over-identification versus mindfulness. The short form of the Turkish version of the scale was developed by Solmazer (2018) based on the Kantaş's (2013) Turkish adaptation of the original 26-item form. Cronbach Alpha value of the total scale was .88 indicating an excellent reliability (Solmazer, 2018). In the current study, Cronbach Alpha value of the total scale was.91.

Emotion Regulation Questionnaire (ERQ)

ERQ (Gross & John, 2003) is a 7-point Likert-type scale (1 = *strongly disagree* to 7 = *strongly agree*) that consists of 10 items and measures individuals' use of two intrapersonal emotion regulation strategies (i.e., cognitive reappraisal and expressive suppression). The scale was adapted to Turkish by Yurtsever (2008; as cited in Aka & Gençöz, 2014), and later revised by Aka and Gençöz (2014). Cronbach Alpha values of the Turkish version of the scale were.85 for cognitive reappraisal and .78 for expressive suppression subscales (Aka & Gençöz, 2014). In the current study, Cronbach Alpha values were .86 for cognitive reappraisal and .79 for expressive suppression subscales.

Cognitive Emotion Regulation Questionnaire – Short Form (CERQ-SF)

CERQ-SF (Çakmak & Çevik, 2010) is a 5-point Likert-type (1 = *almost never* to 5 = *almost always*) measure developed based on CERQ (Garnefski, Kraaij, & Spinhoven, 2001) to measure cognitive coping strategies used by individuals in the face of negative events. The scale consists of 18 items. All subscales (self-blame, acceptance, rumination, refocus on planning (problem solving), other-blame, catastrophizing, positive refocusing, putting into perspective, positive reappraisal) in

the original measure were preserved in the short form and the scores that can be obtained from each subscale vary between 2 and 10. Cronbach Alpha values of the subscales of the Turkish version of the scale were .64 for self-blame, .69 for acceptance, .63 for rumination, .74 for positive refocusing, .68 for problem solving, .68 for positive reappraisal, .63 for putting into perspective, .68 for catastrophizing and .70 for other-blame (Çakmak & Çevik, 2010). Within the scope of this study, only subscales of acceptance, self-blame, rumination, problem solving, and catastrophizing were used. In the current study, Cronbach Alpha values of these subscales were .80, .84, .66, .70 and .83 for acceptance, self-blame, rumination, problem solving, and catastrophizing, respectively.

Interpersonal Emotion Regulation Questionnaire (IERQ)
IERQ (Hofmann, Carpenter, & Curtiss, 2016) is a 5-point Likert type (1 = *not true for me at all* to 5 = *extremely true for me*) scale which examines how individuals use others to regulate their own emotions. The scale consists of 20 items and 4 subscales. These subscales are soothing, gaining perspective, social modeling, and increasing positive emotions, respectively. While the first three of these subscales are related to regulating negative emotions, the last subscale is directed towards managing positive emotions. The scale was adapted to Turkish by Koç et al. (2019) and Cronbach Alpha values were .81 for increasing positive emotions, .86 for soothing, .77 for gaining perspective, and .87 for social modeling. In the current study, Cronbach Alpha values of the subscales were .90 for increasing positive emotions .86 for soothing .79 for gaining perspective and .91 for social modeling.

Depression, Anxiety, Stress Scale-21 (DASS-21)
DASS-21 (Lovibond & Lovibond, 1995) is a 4-point rating scale that consists of 21-items. It was developed to measure the level and frequency of depression, anxiety and stress symptoms individuals experienced in the past week. There are 7 items in each subscale. The scale was adapted to Turkish by Sarıçam (2018) and Cronbach Alpha values of the subscales were .85 for depression, .80 for anxiety and .77 for stress. In the current study, only depression and anxiety subscales were used. Cronbach Alpha values of these subscales were .89 and .85 for depression and anxiety, respectively.

Mental Health Continuum Scale – Short Form (MHC-SF)
MHC-SF (Keyes et al., 2008) is a 6-point rating scale that was developed to measure emotional, psychological, and social well-being. It is comprised of 14 items. The scale was adapted to Turkish by Demirci and Akın (2015) and Cronbach alpha values of the subscales were .84, .85, and .78, respectively, while the Cronbach alpha value for the total scale was .90 In this study, Cronbach Alpha values of the sub-subscales were .87 for emotional well-being, .88 for psychological well-being, .83 for social well-being, and .93 for total scale.

Procedure

Participation in the study was carried out on a voluntary basis. Considering the conditions of the current COVID-19 pandemic period, convenient and snowballing sampling method was used. Data were collected online via Google Forms link between November-December 2020. First, all participants answered the demographic information form which consisted of questions regarding participants' age, gender, year of study and then the BAEQ, CAMS-R, SCS-SF, ERQ, CERQ-SF, IERQ, DASS-21 and MHC-SF, respectively. Participants had to answer each question before they could submit the form. It took approximately 15-20 minutes to complete the study.

The scale adaptation was carried out in an eight-stage process. In the first stage, the original scale was translated into Turkish by three counseling psychology Ph.D. students who have at least C1 level of English. The translations of each item were put together in a single form and were examined by the researchers in the second stage. The expressions that best reflected the original statements were selected for each item. Thereafter, the first draft was translated back to English by a volunteer academic from the BAU Department of English Language Teaching. The fourth stage includes that the researchers made the necessary corrections by comparing the original form of the scale with the translated version. In the fifth stage, the second draft of the scale was submitted to the expert opinion of academics, who hold a Ph.D. degree in different fields of psychology. In the sixth stage, necessary corrections were made in the light of the feedbacks. In the seventh stage, the third draft was presented to ten volunteer undergraduate students to get their opinions regarding the clarity of the items. In the final stage, final changes were made in the light of the feedback from the students.

Data analysis

To examine the factor structure of the BAEQ, exploratory factor analysis (EFA) was conducted. Then the sample was randomly divided into two and the confirmatory factor analysis (CFA) was performed with one half of the sample. The raw data was used as input, and maximum likelihood estimation was employed in the analysis. Normal theory weighted least squares $\chi2$ was used for the evaluation of model fit. Besides, we used the Comparative Fit Index (CFI), the Goodness of Fit Index (GFI), Standardized Root Mean Squared Residual (SRMR), and the Root-mean-square-error of approximation (RMSEA). Whether the tested CFA model demonstrated a poor fit or an adequate fit was assessed by the recommendations for model evaluation suggested by Schermelleh-Engel, Moosbrugger, and Müller (2003). The internal consistency of the scale was examined by calculating the Cronbach Alpha internal consistency coefficients. The criterion validity of the scale was demonstrated by Pearson correlation analysis performed with mindfulness, self-compassion, intra and

interpersonal emotion regulation strategies, and positive and negative mental health variables.

One question that awaits to be answered in the literature is what factors might have been influential in the individual differences regarding beliefs individuals hold about emotions (De Castella et al., 2013). Dispositional mindfulness and self-compassion, which are considered as personality traits that individuals have at varying levels as well as skills that can be developed (Brown & Ryan, 2003; Sauer et al., 2013), are believed to be two possible factors that could explain these differences. Previous research (e.g., Hayes & Feldman, 2004; Shapiro & Schwartz, 2000) suggests that the ability to enter a detached awareness without judgment can weaken maladaptive or unpleasant, pre-existing thoughts and behaviors through advanced self-regulation capacity. Indeed, a study conducted by Veilleux et al. (2019) supports this view by showing that there is a negative relationship between negative beliefs that emotions such as "emotions cannot be controlled" and/or "emotions are bad" and mindfulness. Therefore, we expected a strong/moderate negative correlation between these variables. Similarly, previous research (e.g., De Castella et al. 2013; Kneeland & Dovidio, 2020; Tamir et al., 2007; Trincas et al., 2016; Veilleux et al., 2019) demonstrated the link among emotion regulation strategies, psychopathology symptoms, well-being, and beliefs about emotions. Thus, we expected strong/moderate positive correlations between maladaptive emotion regulation strategies, negative mental health variables and beliefs about emotions and strong/moderate negative correlations between adaptive emotion regulation strategies, positive mental health variables and beliefs about emotions. The statistical analyses were performed using SPSS Version 24 and AMOS Version 21.

RESULTS

Exploratory Factor Analysis

A total of 436 cases were subjected to an EFA using principal axis factoring method to reveal the factor structure of the 43-item Turkish version of the BAEQ. Screening of the data was also performed including skewness, kurtosis, outliers, and missing data. Normality was within the accepted level of skewness and kurtosis according to the criteria suggested by Kline (2011). There were neither missing values nor outliers. The results of the Kaiser-Meyer-Olkin measure of sampling adequacy (KMO = .87) and the Bartlett's test of sphericity ($\chi2$ (903) = 6872.564, $p < .001$) indicated that the data were suitable for factor analysis. An oblique rotation with the Kaiser normalization procedure was performed to facilitate the interpretability of results. Six factors emerged with eigenvalues greater than 1 (Factor 1: eigenvalue = 8.00, percent variance = 19.06, Factor 2: eigenvalue = 3.55, percent variance = 8.46, Factor 3: eigenvalue =3.22, percent variance: 7.67, Factor 4: eigenvalue = 2.50, percent variance = 5.95, Factor 5: eigenvalue = 1.94, percent variance = 4.63,

Factor 6: eigenvalue = 1.41, percent variance = 3.36). The screening also indicated a six-factor solution for the data. Costello and Osborne (2005) suggest removing cross-loading items (a load of .32 or higher on two or more factors) if there are substantial number of items with more than .50 loadings in the factors.

When the pattern matrix was examined in the light of this criteria, it was decided to remove Item 2, Item 10, Item 11, Item 16, Item 22 from the data and repeat the analysis. When the analysis was repeated, it was observed that Item 8 did not load above .32 on any factor, thus it was also removed. Accordingly, Turkish version of the BAEQ consisted of 37 items. The item-loadings of the Overwhelming/Uncontrollable factor were between .37 and .71, while the item-loadings of the Shameful/Irrational, Useless, Invalid/Meaninglessness, Contagious, and Damaging factors were between .38 and .74, .47 and .73, .32 and .85, .45 and .70, and .33 and .68, respectively. When the 37-item Turkish version of the BAEQ was compared with the original version, it was observed that seven items (Item 7, Item 13, Item 17, Item 29, Item 38, Item 42, Item 43) were loaded on to different factors than the original version. When the aforementioned items and the new factors they loaded onto were examined, it was concluded that these items were compatible with the new factors they loaded onto in terms of content, thus were retained on the different factors. In light of this information, the original scale and its Turkish version were found to be structurally similar to each other by 81.08 %. The final factor structure that is further tested is shown in Table 1.

Table 1.
Factor Loadings for Direct Oblimin Rotated Six Factor Solution for 37 BAEQ Items

Items	\multicolumn{6}{c}{Factor loadings}	Items	\multicolumn{6}{c}{Factor loadings}

Items	1	2	3	4	5	6	Items	1	2	3	4	5	6
Item 12	.714						Item 24			.566			
Item 23	.714						Item 18			.560			
Item 21	.668						Item 5			.467			
Item 40	.655						Item 35				.848		
Item 1	.543						Item 20				.745		
Item 29	.442						Item 37				.524		
Item 34	.367						Item 39				.328		
Item 28		.742					Item 3				.321		
Item 41		.688					Item 31					.704	
Item 15		.683					Item 9					.524	
Item 33		.661					Item 19					.470	
Item 43		.516					Item 42					.451	
Item 30		.492					Item 6						-.676
Item 4		.469					Item 26						-.584
Item 25		.422					Item 36						-.576
Item 13		.376					Item 7						-.469
Item 32			.732				Item 38						-.447
Item 27			.584				Item 17						-.330
Item 14			.573										

Note: N = 436, Factor 1: Overwhelming/Uncontrollable, Factor 2: Shameful/Irrational, Factor 3: Useless, Factor 4: Invalid/Meaningless, Factor 5: Contagious, Factor 6: Damaging. *Note:* Numbers next to the items correspond to their order in the original scale.

Confirmatory Factor Analysis

A confirmatory factor analysis was performed using the maximum likelihood estimation method on three alternative models. First model included six factors; 37-item model derived from the results of exploratory factor analysis. The second model also included six factors; 37-item model derived from the exploratory factor analysis by employing theoretically meaningful modification suggestions emerged among ten item pairs. Since the items under the same factor measure the same component of beliefs about emotions, a latent relationship between these items was considered acceptable, and the modification processes were carried out sequentially.

After repeating the analyses with the first and second model, the third model was created by using item parceling method which included two parcels for each of the six factors. The balancing approach, which considers item-total correlations, was used while creating the parcels for each factor (Little, Rhemtulla, Gibson, & Schoemann, 2013). In this context, the items with the highest and lowest item-total correlation were placed in the first parcel and the next ones in the second parcel. In the literature, it is suggested item parceling method to overcome problems such as non-normal distribution, inability to meet the large sample requirement, or the items being too close to each other in terms of meaning (Nasser & Wisenbaker, 2006). Some researchers (e.g., Hau & Marsh, 2004; Marsh, Hau, Balla, & Grayson, 1998) suggested that reduced complexity of the measurement model will lead to more stable parameter estimates without the need to eliminate items that might contribute to the meaning of the latent variable. Moreover, treating items in parcels makes it possible to use more realistic models of human behavior, as it reduces the number of indicators involved in the modeling (Nasser & Wisenbaker, 2006). The good and acceptable fit value ranges as suggested by Schermelleh-Engel et al. (2003) and the results obtained for each model are shown in Table 2.

Table 2.
Goodness-of-Fit Indicators of Models for the Turkish Version of the BAEQ

Model Fit Indices	Good Fit Values	Acceptable Fit Values	First Model	Second Model	Third Model
CMIN			1138.479	998.128	86.088
DF			614	603	39
CMIN/DF	$0 \leq$ CMIN/DF≤ 2	$2 <$CMIN/DF ≤ 3	1.854	1.655	2.207
RMSEA	$0 \leq$ RMSEA $\leq .05$	$.05 <$ RMSEA $\leq .08$	.063	.055	.075
SRMR	$0 \leq$SRMR $< .05$	$.05 \leq$ SRMR $< .1$	.094	.090	.068
GFI	$.95 \leq$ GFI ≤ 1.00	$.90 \leq$ GFI $< .95$	.781	.805	.940
CFI	$.95 \leq$ CFI ≤ 1.00	$.90 \leq$ CFI $< .95$	.781	.836	.947

As shown in Table 2, when the fit values ($\chi 2 = 1143.726$ ($p < .001$), RMSEA = .063, 90% Cl [.057-.069], SRMR = .094, GFI = .781, CFI = .781) for the first model was examined, it was observed that CMIN/DF value was within the range of good fit values; RMSEA and SRMR values were at acceptable levels. On the other hand, GFI and CFI values were well below the acceptable fit values ranges. Similarly, when the fit values ($\chi 2 = 998.128$ ($p < .001$), RMSEA = .055, 90% Cl [.049-.061],

SRMR = .090, GFI = .805, CFI = .836) for the second model was examined, it was observed that the CMIN/DF value was within the range of good fit values; RMSEA and SRMR values were at acceptable levels; on the other hand, although the GFI and CFI values showed some improvement compared to the first model, they were still below the range of acceptable fit values. Lastly, when the fit values ($\chi 2$ = 86.088 (p < .001), RMSEA = .075, 90% Cl [.053-.096], SRMR = .068, GFI = .940, CFI =. 947) for the third model was examined, it was observed that all fit indices were in the range of acceptable fit values.

Reliability

The internal consistency of the Turkish version of the BAEQ was examined by calculating Cronbach Alpha internal consistency coefficient. The internal-consistency coefficient of the Overwhelming/Uncontrollable factor was .83. The internal-consistency coefficients for Shameful/Irrational, Useless, Invalid/Meaninglessness, Contagious, and Damaging factors were .81, .75, .70, .61, .76, respectively. Finally, the internal-consistency coefficient for the total 37-item scale was .78.

Criterion Validity

The mean, standard deviation, and correlation coefficients of the six factors of the Turkish version of the BAEQ and all the other variables are shown in Table 3. As can be seen in Table 3, there was a statistically significant relationship between *Overwhelming/Uncontrollable*, and *Shameful/Irrational* (r = .46, p < .01), *Invalid/Meaninglessness* (r = -.29, p < .01), *Contagious* (r = .14, p < .01), and *Damaging* (r = .57, p < .01) factors, respectively. In addition, other statistically significant relationships were found between *Invalid/Meaninglessness* and *Damaging* (r = -.35, p < .01), *Contagious* and *Damaging* (r = .23, p < .01), *Useless* and *Contagious* (r = -.17, p < .01), *Shameful/Irrational* and *Contagious* (r = .16, p < .01) factors.

      Regarding relationships between the BAEQ factors and trait/dispositional mindfulness, statistically significant relationships were found between trait/dispositional mindfulness and *Overwhelming/Uncontrollable* (r = -.44, p < .01), *Damaging* (r = -.32, p < .01), *Shameful/Irrational* (r = -.27, p < .01) and *Useless* (r = .10, p < .05) factors. Considering the relationships between self-compassion and the BAEQ factors, a similar pattern of results was observed. Specifically, statistically significant relationships were found between self-compassion and *Overwhelming/Uncontrollable* (r = -.61, p < .01), *Damaging* (r = -.46, p < .01), *Shameful/Irrational* (r = -.36, p < .01) and *Invalid/Meaninglessness* (r =.10, p < .05). factors, respectively.

      Regarding relationships between the BAEQ factors and adaptive intrapersonal emotion regulation strategies, statistically significant relationships were

found between cognitive reappraisal and *Overwhelming/Uncontrollable* (r = -.42, p < .01), *Damaging* (r = -.26, p < .01), *Shameful/Irrational* (r = -.17, p < .01) factors. Considering the relationships between acceptance and the BAEQ factors, a similar pattern of results was observed. Specifically, significant relationships were found between acceptance and *Overwhelming/Uncontrollable* (r = -.27, p < .01), *Shameful/Irrational* (r = -.18, p < .01), *Damaging* (r = -.16, p < .01), and *Invalid/Meaninglessness* (r = -.13, p < .01) factors. In parallel to this, statistically significant relationships were also found between problem solving and *Overwhelming/Uncontrollable* (r = -.28, p < .01), *Shameful/Irrational* (r = -.16, p < .01), *Damaging* factors (r = -.12, p < .05), respectively.

Regarding relationships between the BAEQ factors and maladaptive intrapersonal emotion regulation strategies, statistically significant relationships were found between expressive suppression and *Shameful/Irrational* (r = .39, p < .01), *Overwhelming/Uncontrollable* (r = .24, p < .01), Damaging (r = .14, p < .01) factors. Considering the relationships between self-blame and the BAEQ factors, statistically significant relationships were found between self-blame and *Shameful/Irrational* (r = .26, p < .01), *Overwhelming/Uncontrollable* (r = .24, p < .01), *Damaging* (r = .21, p < .01), and *Invalid/Meaninglessness* (r = .-12, p < .01) factors. With respect to relationships between catastrophizing and the BAEQ factors, a similar pattern of results was found. Specifically, significant relationships were found between catastrophizing and *Overwhelming/Uncontrollable* (r = .62, p < .01), *Damaging* (r = .46, p < .01), *Shameful/Irrational* (r = .36, p < .01) and *Invalid/Meaninglessness* (r = -.22, p < .01) factors. Lastly, regarding relationships between catastrophizing and rumination, statistically significant relationships were found between catastrophizing and *Overwhelming/Uncontrollable* (r = -.18, p < .01), *Useless* (r = -.18, p < .01), *Invalid/Meaninglessness* (r = -.14, p < .01) and *Shameful/Irrational* (r = -.12, p < .01) factors, respectively.

As for the relationships between the BAEQ factors and interpersonal emotion regulation strategies, statistically significant relationships were found between increasing positive affect and *Shameful/Irrational* (r = -.18, p < .01), *Contagious* (r = .14, p < .01), and *Invalid/Meaninglessness* (r = -.11, p < .05) factors, respectively. With respect to relationships between the BAEQ factors and perspective taking, a similar pattern of results was observed. Specifically, statistically significant relationships were found between perspective taking and *Useless* (r = -.15, p < .01), *Shameful/Irrational* (r = .12, p < .05), and *Invalid/Meaninglessness* (r = -.12, p < .05) factors, respectively. Regarding the relationships between BAEQ factors and soothing, statistically significant relationships were found between soothing and *Invalid/Meaninglessness* (r = -.14, p < .01), *Contagious* (r = .13, p < .01), and *Useless* (r = - .11, p < .05) factors, respectively. Finally, considering the relationships between the BAEQ factors and social modeling, only two factors, namely *Useless* (r = -.20, p < .01), and *Invalid/Meaninglessness* (r = -.16, p < .05) showed statistically significant relationships.

Regarding the relationships between the BAEQ factors and depression, which is one of the indicators of negative mental health, statistically significant relationships were found between depression and *Overwhelming/Uncontrollable* (*r* = .56, *p* < .01), *Damaging* (*r* = .45, *p* < .01), *Shameful/Irrational* (*r* = .38, *p* < .01), *Invalid/Meaninglessness* (*r* = -.24, *p* < .01) factors, respectively. Considering the relationships between the BAEQ factors and anxiety, a similar pattern of results was observed. Specifically, statistically significant relationships were found between anxiety and *Overwhelming/Uncontrollable* (*r* = .47, *p* < .01), *Damaging* (*r* = .37, *p* < .01), *Shameful/Irrational* (*r* = .36, *p* < .01) and *Invalid/Meaninglessness* (*r* = -.12, *p* < .01) factors, respectively.

When considered the relationships between the BAEQ factors and positive mental health, statistically significant relationships were found between positive mental health and *Overwhelming/Uncontrollable* (*r* = -.43, *p* < .01), *Damaging* (*r* = -.30, *p* < .01), and *Shameful/Irrational* (*r* = -.25, *p* < .01) factors, respectively. Considering the relationships between emotional, psychological, and social wellbeing and the BAEQ factors, an analogous pattern of results was observed.

Table 3.
The Mean, Standard Deviation, and Correlation Coefficients of the Six Factors of the Turkish version of the BAEQ and Other Variables

Variables	M	SD	1.	2.	3.	4.	5.	6.
Beliefs About Emotions (BAEQ)								
1. Overwhelming/Uncontrollable	2.84	.86	-	.46**	.00	-.29**	.14**	.57**
2. Shameful/Irrational	1.96	.65	.46**	-	-.01	-.09	.16**	.00
3. Useless	3.25	.80	.00	-.01	-	.01	-.17**	.05
4. Invalid/Meaninglessness	2.47	.77	-.29	-.09	.01	-	.03	-.35**
5. Contagious	2.92	.75	.14**	.16**	-.17**	.03	-	.23**
6. Damaging	3.56	.80	.57**	.36**	.05	-.35**	.23**	-
Mindfulness (CAMS-R)	27.87	5.72	-.44**	-.27**	-.10*	-.08	-.00	-.32**
Self-compassion (SCS-SF)	3.12	.86	-.61**	-.36**	-.05	.10*	-.06	-.46**
Emotion Regulation Strategies (ERQ)								
Cognitive Reappraisal	4.85	1.17	-.42**	-.17**	-.09	-.07	.05	-.26**
Expressive Suppression	3.52	1.46	.24**	.39**	-.09	-.07	.00	.14**
Cognitive Emotion Regulation Strategies (CERQ-SF)								
Acceptance	7.24	2.04	-.27**	-18**	-.07	-.13**	-.02	-.16**
Self-blame	6.11	2.14	.24**	.26**	-.09	-.12**	.08	.21**
Catastrophizing	6.07	2.33	.62**	.36**	-.00	-.22**	.08	.46**
Rumination	7.85	1.81	-.18**	-.12*	-18**	-.14**	.02	-.06
Problem solving	7.87	1.86	-.28**	-.16**	-.06	-.09	.03	-.12*
Interpersonal Emotion Regulation Strategies (IERQ)								
Increasing Positive Affect	22.14	3.64	.03	-.18**	.04	-.11*	.14**	.06

Variables	M	SD	1.	2.	3.	4.	5.	6.
Perspective Taking	15.60	4.80	-.04	.12*	-.15**	-.12*	.04	.04
Soothing	17.84	4.98	.09	.02	-.11*	-.14**	.13**	.05
Social Modeling	19.11	4.99	-.05	-.05	-.20**	-.16*	.07	.05
Negative Mental Health (DASS-21)								
Depression	10.20	6.10	.56**	.38**	-.04	-.24**	.04	.45**
Anxiety	7.71	5.49	.47**	.36**	-.10	-.12**	.03	.37**
Positive Mental Health (MHC-SF)	39.72	14.11	-.43**	-.25**	-.08	.08	.05	-.30**
Emotional Wellbeing	9.26	3.18	-.40**	-.26**	-.04	.16	.05	-.29**
Psychological Wellbeing	19.49	6.74	-45**	-.30**	-.07	.06	.01	-.29**
Social Wellbeing	10.97	5.90	-29**	-.12*	-.09	.03	.08	-.23**

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

DISCUSSION

The aim of this current study was to examine the psychometric properties of the Turkish adaptation of the BAEQ and provide a valid tool for investigating beliefs about emotions in Turkey and cross-cultural studies. Results of the EFA showed that the Turkish version of the BAEQ also supports a six-factor structure, akin to the original study conducted by Manser et al. (2012). As in the original scale, these factors were named as *Overwhelming/ Uncontrollable, Shameful/ Irrational, Useless, Invalid/ Meaninglessness, Contagious,* and *Damaging.* Furthermore, one item did not load on any factor above .32, and five items cross loaded on multiple factors above .32, thus were removed from further analysis. In addition to this, seven items loaded onto different factors in comparison to the original scale. After the evaluation of these items and the factors they loaded on, it was concluded that they were compatible with each other in terms of content, thus it was decided to keep them.

In the next step, CFA was performed to verify the factor structure of the 37-item BAEQ. Although CMIN/DF, RMSEA and SRMR values were at acceptable levels in the first trial, it was observed that the GFI and CFI values were well below the acceptable fit value ranges, and therefore it was decided to retest the model by making the suggested modifications on the model. In the second trial, similar to the first findings, RMSEA and SRMR values were at an acceptable level; CMIN/DF value, which was within the acceptable value range in the first trial, was found to be within the good fit value range. However, although the GFI and CFI values showed some improvement compared to the first model, they remained below the range of acceptable fit values. In the literature, it has been argued that solutions based on parceled data provide more precise predictions and fit better with the data than their item-based counterparts; especially when there are associated error variances and the sample size is small (Bandalos, 2002; Holbert & Stephenson, 2002; Matsunaga, 2008). In the light of this information, the item parceling method was utilized in the

third trial, and it was shown that the six-factor structure provided an acceptable fit. Based on this finding, it is possible to postulate that the present findings provide evidence that the concept of beliefs about emotions and the proposed six-factor structure exist in the minds of individuals regardless of culture.

The internal-consistency coefficients for *Overwhelming/ Uncontrollable, Shameful/ Irrational, Useless, Invalid/ Meaninglessness, Contagious, Damaging* factors and the total scale indicated adequate to good internal consistency similar to the original study in which Cronbach Alpha values ranged from .69 to .88. Thus, it can be concluded that the Turkish version of the BAEQ is a reliable scale that can be used in a Turkish population to measure the beliefs about emotions.

To test the criterion validity of the scale, the relationships of the BAEQ factors with each other and with dispositional/trait mindfulness, self-compassion, intra and interpersonal emotion regulation strategies, positive and negative mental health variables were examined. It was observed that the correlation coefficients among the BAEQ factors vary between .16 and .57. These findings are in line with the findings of the original study, in which the correlations among factors were found to be between .10 and .46. On the other hand, there are some significant differences when the findings of the two studies are compared. In the original study, statistically significant and positive correlations were found between all the BAEQ factors (except between *Invalid/Meaninglessness* and *Damaging*), whereas in this study, no significant relationship was found between all factors and, negative relationships were found between some of the factors such as between *Invalid/Meaninglessness Damaging* and *Invalid/Meaninglessness*, *Overwhelming/Uncontrollable* . Based on these findings, it can be stated that beliefs about these emotions do not always co-exist in Turkish culture. It is possible that individuals who believe that there is not always a meaningful reason for the emergence of unpleasant emotions and/or that emotions do not need to be considered, do not see these emotions as a threat to their physical or psychological health or as uncontrollable and/or overwhelming emotions.

With respect to relationships between the BAEQ factors and dispositional/trait mindfulness, it was shown that dispositional/trait mindfulness was negatively related to all factors except for the *Invalid/Meaninglessness* and *Contagious* factors. In the light of this information, it can be postulated that individuals with high mindfulness level are less prone to have negative beliefs about emotions compared to those with lower mindfulness level. In fact, many researchers in the literature have emphasized that mindfulness skills can weaken established negative thoughts and behaviors (e.g., Hayes & Feldman, 2004; Shapiro & Schwartz, 2000). Additionally, the findings of the current study supported Veilleux et al.'s (2019) findings by demonstrating the negative relationship between dispositional/trait mindfulness and beliefs that emotions are "*uncontrollable*" and/or "*bad*". From this point of view, considering that mindfulness includes a willingness to see with a "beginner mind" (Bishop et al., 2004), as opposed to avoiding experiences or trying to cope with them by suppressing them; it can be claimed that

individuals with higher mindfulness level are less likely to be influenced by rigid and repetitive thought patterns formed through experience.

Regarding the relationships between the BAEQ factors and self-compassion, it was shown that self-compassion was negatively correlated with all factors, except for *Useless* and *Contagious*. These findings indicate that individuals with higher levels of self-compassion are less likely to have negative beliefs about emotions compared to individuals with lower levels of self-compassion. It has been stated in the literature that self-compassion acts as a buffer against the formation or in-depth activation of psychopathology-related schemas (Trompetter, Kleine, & Bohlmeijer, 2017). Therefore, this study supports the view and the idea that self-compassion can be a protective factor against the formation of emotional schemas associated with psychopathology.

With respect to relationships between the BAEQ factors and intrapersonal emotion regulation strategies, it was shown that cognitive reappraisal, acceptance, and problem-solving strategies were negatively related to *Overwhelming/ Uncontrollable, Shameful/ Irrational* and *Damaging* factors. On the contrary, expressive suppression, self-blame, and catastrophizing strategies were found to be positively associated with the aforementioned factors. These findings, in line with the literature (e.g., De Castella et al., 2013; Ford et al., 2018; Kneeland & Dovidio, 2020; Kneeland, Goodman, & Dovidio, 2020; Kneeland et al., 2016a; Schroder et al., 2015; Trincas et al., 2016) show that individuals who extensively use adaptive strategies are less likely to have negative beliefs about emotions compared to individuals who use maladaptive strategies. On the other hand, there is a finding that contradicts with the previous studies in the literature in this current study. Although previous studies (e.g., Trincas et al., 2016) found a positive relationship between negative beliefs about emotions and rumination, a positive relationship was found between the mentioned variables in this study, although the strength of the relationship was quite weak. It is thought that one reason for the emergence of such a finding may be the measurement tool used to measure rumination. Specifically, while the 25-item Stress-Reactive Rumination Scale (SRRS, Robinson & Alloy, 2003) was used in the aforementioned study, the 2-item rumination sub-scale of the Turkish version of the Cognitive Emotion Regulation Scale-Short Form (CERS-SF, Çakmak & Çevik, 2010) was used in this study. It is possible that these statements (i.e., "*I would like to understand why the event caused this feeling on me*," "*I think about the emotions that the bad event that happened to me triggered me*.") may not adequately reflect the tendency of individuals to think about negative implications following stressful situations.

Regarding relationships between the BAEQ factors and interpersonal emotion regulation strategies, negative relationships were shown between interpersonal emotion regulation strategies and negative beliefs about emotions, although the strength of these relationships were weak. The only exception to this was the *Contagious* factor. It might be that those individuals who believe that emotions can pass on and affect other people around them are more likely to turn to

others to increase emotions such as happiness and pleasure and seek consolation and understanding which are actions that are closely related to the concept of empathy. Taken together, these findings support Veilleux et al.'s (2019) findings regarding the link between interpersonal emotion regulation and negative beliefs about emotions. In addition, the present finding also supports the idea suggested by Kneeland et al. (2016b) that individuals who hold negative beliefs about emotions might be less willing to use interpersonal emotion regulation strategies.

In terms of the relationships between the BAEQ factors and mental health, positive relationships were demonstrated between *Overwhelming/ Uncontrollable, Shameful/ Irrational, Invalid/ Meaninglessness* and *Damaging* factors and depression and anxiety. Additionally, negative relationships were shown between *Overwhelming/Uncontrollable, Shameful/ Irrational* and *Damaging* factors and emotional, psychological, and social well-being. These findings, in parallel to previous studies (e.g., De Castella et al., 2013; Manser et al., 2012; Schroder et al., 2016; 2015; Tamir et al., 2007; Veilleux et al., 2015) suggest that individuals who have negative beliefs about emotions may be more prone to experience depression and anxiety whereas individuals with higher level of well-being are less likely to have negative beliefs about emotions compared to other individuals.

Although the present study contributes to the emerging research on beliefs about emotions, several limitations should be noted. Firstly, the sample consisted of mostly female participants and due to the limited number of male participants, gender differences could not be investigated. Therefore, a replication study with an equal number of male and female participants is warranted for future studies. Secondly, this study used a healthy student sample, and thus the present findings may not be generalized to individuals who experience clinical levels of depression and/or anxiety. Investigating the beliefs about emotions on clinical samples has the potential to further the understanding of individual differences in the selection of emotion regulation strategies. Thirdly, due to ongoing COVID-19 pandemic, the data could only be collected online which means that the sample consisted of highly educated young adults who had access to stable internet connection. Therefore, applying results from this study to general population should be carried out with caution. Lastly, the results only partially support the structure of the initial measure so comparability might be compromised. Thus, it is believed that the validity of Turkish version of the BAEQ should be tested further with bigger and more diverse samples before final conclusions can be drawn.

In conclusion, the current study fills the existing gap by introducing another multidimensional and comprehensive scale with a solid theoretical basis to measure the beliefs about emotions. The Turkish version of the BAEQ is a valid and reliable measurement tool that can be used by the emotion regulation researchers in Turkey. Furthermore, relationships of BAEQ factors with relevant constructs were in line with the existing research. Further studies might shed light on the factors such as personality, parenting and/or attachment styles that play a role in the occurrence of individual differences in beliefs about emotions.

REFERENCES

Aka, B. T., & Gençöz, T. (2014). Perceived parenting styles, emotion recognition, and emotion regulation in relation to psychological well-being. *Procedia-Social and Behavioral Sciences Journal, 159*(23), 529–533. https://doi.org/10.1016/j.sbspro.2014.12.418

Bandalos, D. L. (2002). The effects of item parceling on goodness-of-fit and parameter estimate bias in structural equation modeling. *Structural Equation Modeling, 9,* 78-102. https://doi.org/10.1207/S15328007SEM0901_5

Bishop, S., Lau, M., Shapiro, S., Carlson, L., Anderson, N., Carmody, J., … Devins, G. (2006). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241. https://doi.org/10.1093/clipsy.bph077

Bond, F. W., Hayes, S. C., Baer, R. A., Carpenter, K. M., Guenole, N., Orcutt, H. K., … & Zettle, R. D. (2011). Preliminary psychometric properties of the Acceptance and Action Questionnaire – II: A revised measure of psychological inflexibility and experiential avoidance. *Behavior Therapy, 42*(4), 676–688. https://doi.org/10.1016/j.beth.2011.03.007

Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, *84*(4), 822–848. https://doi.org/10.1037/0022-3514.84.4.822

Çakmak, A. F., & Çevik, E. I. (2010). Cognitive Emotion Regulation Questionnaire: Development of Turkish version of 18-item short form. *African Journal of Business Management, 4*(10), 2097-2102.

Catak, P. D. (2012). The Turkish version of the Cognitive and Affective Mindfulness Scale-Revised. *Europe's Journal of Psychology, 8*(4), 603-619. https://doi.org/10.5964/ejop.v8i4.436

Cattell, R. B. (1978). *The scientific use of factor analysis in behavioral and life sciences.* Plenum, New York.

Costello, A. B., & Osborne, J. (2005). Best practices in exploratory factor analysis: Four recommendations for getting the most from your analysis. *Practical Assessment, Research, and Evaluation, 10*(7), 1-9. https://doi.org/10.7275/jyj1-4868

De Castella, K., Goldin, P., Jazaieri, H., Ziv, M., Dweck, C., & Gross, J. (2013). Beliefs about emotion: Links to emotion regulation, well-being, and psychological distress. *Basic and Applied Social Psychology, 35*(6), 497-505. https://doi.org/10.1080/01973533.2013.840632

De Castella, K., Platow, M., Tamir, M., & Gross, J. (2017). Beliefs about emotion: implications for avoidance-based emotion regulation and psychological health. *Cognition and Emotion, 32*(4), 773-795. https://doi.org/10.1080/02699931.2017.1353485

Demirci, İ., & Akın, A. (2015). Ruh sağlığı sürekliliği kısa formu'nun geçerliği ve güvenirliği. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 48*(1), 49-64. https://doi.org/10.1501/Egifak_0000001352

Feldman, G., Hayes, A., Kumar, S., Greeson, J., & Laurenceau, J.-P. (2007). Mindfulness and emotion regulation: The development and initial validation of the Cognitive and Affective Mindfulness Scale-Revised (CAMS-R). *Journal of Psychopathology and Behavioral Assessment, 29*, 177-190. https://doi.org/10.1007/s10862-006-9035-8

Ford, B., & Gross, J. (2018). Why beliefs about emotion matter: An emotion-regulation perspective. *Current Directions in Psychological Science, 28*(1), 1-8. https://doi.org/10.1177/0963721418806697

Ford, B., Lwi, S., Gentzler, A., Hankin, B., & Mauss, I. (2018). The cost of believing emotions are uncontrollable: Youths' beliefs about emotion predict emotion regulation and depressive symptoms. *Journal of Experimental Psychology: General, 147*(8), 1170-1190. https://doi.org/10.1037/xge0000396

Garnefski, N., Kraaij, V., & Spinhoven, P. (2001). Negative life events, cognitive emotion regulation and emotional problems. *Personality and Individual Differences, 30*(8), 1311–1327. https://doi.org/10.1016/S0191-8869(00)00113-6

Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Hillsdale, NJ: Erlbaum.

Gross, J. J. (2013). Emotion regulation: Taking stock and moving forward. *Emotion, 13*(3), 359-365. https://doi.org/10.1037/a0032135

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. https://doi.org/10.1037/0022-3514.85.2.348

Hair, J., Black, W., Babin, B., & Anderson, R. (2010). *Multivariate data analysis*. Upper Saddle River, NJ: Prentice-Hall.

Hau, K. T., & Marsh, H. W. (2004). The use of item parcels in structural equation modeling: Non-normal data and small sample sizes. *British Journal of Mathematical and Statistical Psychology*, *57*, 327–351. https://doi.org/10.1111/j.2044-8317.2004.tb00142.x

Hayes, S. C., & Feldman, G. (2004). Clarifying the construct of mindfulness in the context of emotion regulation and the process of change in therapy. *Clinical Psychology: Science and Practice, 11*(3), 255−262. https://doi.org/10.1093/clipsy.bph080

Hofmann, S. (2014). Interpersonal emotion regulation model of mood and anxiety disorders. *Cognitive Therapy and Research, 38*(5), 483-492. https://doi.org/10.1007/s10608-014-9620-1

Hofmann, S., Carpenter, J., & Curtiss, J. (2016). Interpersonal emotion regulation questionnaire (IERQ): Scale development and psychometric characteristics. *Cognitive Therapy and Research, 40*(3), 341-356. https://doi.org/10.1007/s10608-016-9756-2

Holbert, R. L., & Stephenson, M. T. (2002). Structural equation modeling in the communication studies, 1995–2000. *Human Communication Research*, *28*, 531-551. https://doi.org/10.1093/hcr/28.4.531

Kantaş, Ö. (2013*). Impact of relational and individuational self-orientations on the well- being of academicians: the roles of ego-or eco-system motivations, self- transcendence, self-compassion and burnout*. [Unpublished master's thesis]. Middle East Technical University.

Keyes, C. L. M., Wissing, M., Potgieter, J., Temane, M., Kruger, A., & van Rooy, S. (2008). Evaluation of the Mental Health Continuum—Short Form (MHC-SF) in Swetsana-speaking South Africans. *Clinical Psychology and Psychotherapy, 15*(3), 181–192. https://doi.org/10.1002/cpp.572

Kline, R. B. (2011). *Principles and practice of structural equation modeling* (3rd Ed.) New York: The Guilford Press.

Kneeland, E. T., Goodman, F. R., & Dovidio, J. F. (2020). Emotion beliefs, emotion regulation, and emotional experiences in daily life. *Behavior Therapy, 51*(5), 728-738. https://doi.org/10.1016/j.beth.2019.10.007

Kneeland, E. T., Nolen-Hoeksema, S., Dovidio, J. F., & Gruber, J. (2016a). Emotion malleability beliefs influence the spontaneous regulation of social anxiety. *Cognitive Therapy and Research, 40*(4), 496–509. https://doi.org/10.1007/s10608-016-9765-1

Kneeland, E., & Dovidio, J. (2020). Emotion malleability beliefs and coping with the college transition. *Emotion, 20*(3), 452–461. https://doi.org/10.1037/emo0000559

Kneeland, E., Dovidio, J., Joormann, J., & Clark, M. (2016b). Emotion malleability beliefs, emotion regulation, and psychopathology: Integrating affective and clinical science. *Clinical Psychology Review, 45*, 81-88. https://doi.org/10.1016/j.cpr.2016.03.008

Koç, M., Aka, B., Doğruyol, B., Curtiss, J., Carpenter, J., & Hofmann, S. (2019). Psychometric properties of the Turkish version of the Interpersonal Emotion Regulation Questionnaire (IERQ). *Journal of Psychopathology and Behavioral Assessment, 41*(2), 294-303.

Leahy, R. L. (2002). A model of emotional schemas. *Cognitive and Behavioral Practice, 9*(3), 177–190. https://doi.org/10.1016/S1077-7229(02)80048-7

Little, T. D., Rhemtulla, M., Gibson, K., & Schoemann, A. M. (2013). Why the items versus parcels controversy needn't be one? *Psychological Methods, 18*(3), 285–300. https://doi.org/10.1037/a0033266

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*, 335-343. https://doi.org/10.1016/0005-7967(94)00075-U

MacCallum, R., Widaman, K., Zhang, S., & Hong, S. (1999). Sample size in factor analysis. *Psychological Methods*, *4*(1), 84-99. https://doi.org/10.1037/1082-989X.4.1.84

Manser, R., Cooper, M., & Trefusis, J. (2011). Beliefs about emotions as a metacognitive construct: Initial development of a self-report questionnaire measure and preliminary investigation in relation to emotion regulation. *Clinical Psychology and Psychotherapy, 19*(3), 235-246. https://doi.org/10.1002/cpp.745

Marsh, H. W., Hau, K.-T., Balla, J. R., & Grayson, D. (1998). Is more ever too much? The number of indicators per factor in confirmatory factor analysis. *Multivariate Behavioral Research*, *33*, 181–220. https://doi.org/10.1207/s15327906mbr3302_1

Matsunaga, M. (2008). Item parceling in structural equation modeling: A Primer. *Communication Methods and Measures, 2*(4), 260-293. https://doi.org/10.1080/19312450802458935

Nasser-Abu Alhija, F., & Wisenbaher, J. (2006). A Monte Carlo study investigating the impact of item parceling strategies on parameter estimates and their standard errors in CFA. *Structural Equation Modeling 13*(2). 204-228. https://doi.org/10.1207/s15328007sem1302_3

Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity, 2*(3), 223–250. https://doi.org/10.1080/15298860309027

Raes, F., Pommier, E., Neff, K. D., & Van Gucht, D. (2011). Construction and factorial validation of a short form of the self-compassion scale. *Clinical Psychology and Psychotherapy, 18*(3), 250–255. https://doi.org/10.1002/cpp.702

Rimes, K. A., & Chalder, T. (2010). The Beliefs about Emotions Scale: Validity, reliability and sensitivity to change. *Journal of Psychosomatic Research, 68*(3), 285–292. https://doi.org/10.1016/j.jpsychores.2009.09.014

Robinson, M. S., & Alloy, L. B. (2003). Negative cognitives styles and stress-reactive rumination interact to predict depression: A prospective study. *Cognitive Therapy and Research, 27*, 275-291. https://doi.org/10.1007/s10964-011-9657-3

Sarıçam, H. (2018). The psychometric properties of Turkish version of Depression, Anxiety, Stress Scale-21 (DASS-21) in healthy control and clinical samples. *Bilişsel Davranışçı Psikoterapi ve Araştırmalar Dergisi, 7*(1), 19-30. https://doi.org/ 10.5455/JCBPR.274847

Sauer, S., Walach, H., Schmidt, S., Hinterberger, T., Lynch, S., Büssing, A., ... Kohls, N. (2013). Assessment of mindfulness: Review on state of the art. *Mindfulness, 4*(1), 3-17. https://doi.org/10.1007/s12671-012-0122-5

Schermelleh-Engel, K., Moosbrugger, H., & Müller, H. (2003). Evaluating the fit of structural equation models: Tests of significance and descriptive goodness-of-fit measures. *MPR-Online*, *8*(2), 23-74.

Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2015). The role of implicit theories in mental health symptoms, emotion regulation, and hypothetical treatment choices in college students. *Cognitive Therapy and Research, 39,* 120-139. https://doi.org/10.1007/s10608-014-9652-6

Schroder, H. S., Dawood, S., Yalch, M. M., Donnellan, M. B., & Moser, J. S. (2016). Evaluating the domain specificity of mental health–related mind-sets. *Social Psychological and Personality Science, 7*(6)*,* 508–520. https://doi.org/10.1177/ 1948550616644657

Shapiro, S. L., & Schwartz, G.E.R. (2000). Intentional systemic mindfulness: An integrative model for self-regulation and health. *Advocates in Mind-Body Medicine, 16*(2), 128-134. https://doi.org/10.1054/ambm.1999.0118

Simons, J. S., & Gaher, R. M. (2005). The Distress Tolerance Scale: Development and validation of a self-report measure. *Motivation and Emotion, 29*(2), 83–102. https://doi.org/10.1007/s11031-005-7955-3

Solmazer, G. (2018). *Self-compassion and construal level theory: The role of self-compassion in decreasing the effect of social distance*. [Unpublished doctoral dissertation]. Middle East Technical University.

Tamir, M., John, O. P., Srivastava, S., & Gross, J. J. (2007). Implicit theories of emotion: Affective and social outcomes across a major life transition. *Journal of Personality and Social Psychology, 92*(4), 731-744. https://doi.org/10.1037/0022-3514.92.4.731

Trincas, R., Bilotta, E., & Mancini, F. (2016). Specific beliefs about emotions are associated with different emotion-regulation strategies. *Psychology, 7*(13), 1682-1699. https://doi.org/10.4236/psych.2016.713159

Trompetter, H. R., Kleine, E., & Bohlmeijer, E. T. (2017). Why does positive mental health buffer against psychopathology? An exploratort study on self-compassion as a

resilience mechanism and adaptive emotion regulation strategy. *Cognitive Therapy Research, 41*, 459-468. https://doi.org/10.1007/s10608-016-9774-0

Veilleux, J., Pollert, G., Skinner, K., Baker, D., Chamberlain, K., & Hill, M. A. (2019). Individual beliefs about emotion and perceptions of belief stability are associated with emotion dysregulation, interpersonal emotional attributes, and psychological flexibility. *Personality and Individual Differences, 171,* 110541. https://doi.org/10.1016/j.paid.2020.110541

Yurtsever, G. (2008). Negotiator's profit predicted by cognitive appraisal, suppression of emotions, misrepresentation of information, and tolerance of ambiguity. *Perceptual and Motor Skills, 106*, 590-608. https://doi.org/10.2466/pms.106.2.590-608

Young, J. (1990). *Cognitive therapy for personality disorders: A schema-focused approach.* Sarasota, FL: Professional Resource Exchange Incorporated.