Psychometric properties of the Interpersonal Emotion Regulation Questionnaire (IERQ) in Turkish samples

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Abstract

Intrapersonal emotion regulation is accepted to have an important role on mental health. However, research investigating the effects of interpersonal emotion regulation on mental health is still in its infancy. The objective of the current study was to investigate the psychometric properties of the Interpersonal Emotion Regulation Questionnaire (IERQ) in Turkish samples. For this purpose, IERQ was translated into Turkish and psychometric properties of the scale were examined in two different samples. Structural, concurrent, and criterion validity, as well as reliability analyses, were conducted. Results confirmed the four-factor structure of the original scale. Supporting concurrent validity, IERQ score revealed moderate correlations with the measures of intrapersonal emotion regulation and interpersonal problems. Results of criterion validity analysis revealed that IERQ score successfully differentiated the group with low interpersonal problems from the group with high. The twenty-item Turkish IERQ appeared to be a reliable and valid measure of interpersonal emotion regulation.

Keywords Emotion regulation · Psychometric properties · Interpersonal emotion regulation · Validity · Reliability

Emotion regulation has been one of the most frequently studied topics since the 1960s. Psychologists have taken major strides toward understanding the goals, processes, and results of emotion regulation. Research on emotion regulation has mainly focused on people's regulation efforts of their own emotional experiences. However, interpersonal emotion regulation is an incontrovertible part of emotion regulation process as well. People tend to look for others to talk to about their problems, emotions, achievements in order to receive some sort of emotional support or to maintain or enhance positive feelings. Given the frequency of its usage, much less is known about interpersonal emotion regulation. This relative lack of research might be partly due to the limited number of valid measures on interpersonal emotion regulation (Reis and Collins 2004). Therefore, the present study aimed to promote future research by representing the psychometric properties of

IERQ in Turkish samples and to contribute to the understanding of interpersonal emotion regulation.

Gross and Thompson (2007) classified emotion regulation as intrinsic vs. extrinsic emotion regulation. While intrinsic emotion regulation refers to the regulation efforts of the individual, extrinsic emotion regulation is defined as the regulation of one's emotions by others. Until recent decades, extrinsic emotion regulation has been accepted to be a subject of developmental psychology. Thompson (1994) stated that in infancy, almost all emotions are regulated by the mediation of others. Since infants have limited regulation strategies like gaze shifting, caregiver is the one who spends a substantial amount of time and energy to calm and soothe the infant (Thompson and Calkins 1996). Indeed, this regulation process has multiple benefits. Firstly, it provides immediate soothing and relaxation. Secondly, it contributes to the socialization of emotions and learning of the means of emotion regulation. Infants gradually internalize the observed strategies and methods of emotion regulation (Diamond and Aspinwall 2003; Bowlby 1982). After the development of executive functioning, emotion regulation becomes more effortful and includes higher-level elements (Eisenberg and Morris 2002; Derryberry and Rothbart 1997). Initially, environmental input from the caregiver and then input from other social systems like peer or work systems are incorporated into the emotion regulation repertoire of an individual (Eisenberg et al. 2010;

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Morris et al. 2007). With the effect of environment, emotion regulation strategies of a person might change in terms of type, intensity or timing. There is substantial research support for the role of interpersonal emotion regulation in the early stages of life. However, the role of interpersonal emotion regulation in adulthood has not been studied thoroughly. In his article, Rimé (2009) convincingly discusses that while people are highly interdependent in terms of emotion regulation in the early developmental stages, it is not likely that this need disappears at some point in life.

Interpersonal Emotion Regulation Models

Extant literature on interpersonal emotion regulation has focused on the means of regulating or altering the emotions of other people (e.g. Niven et al. 2009, 2015; Lepore 1998). A dentist's efforts to reduce the anxiety of his/her patient or a person's efforts to make an upset friend feel better are some of the examples of the attempts to alter the emotion of another person. Niven et al. (2009) defined interpersonal emotion regulation as a person's efforts to regulate another person's emotion. However, Zaki and Williams (2013) created a model, which includes both extrinsic and intrinsic interpersonal emotion regulation. In their theory, Zaki and Williams (2013) divided interpersonal emotion regulation as "intrinsic vs. extrinsic" and "response-dependent vs. response-independent" regulation. Intrinsic interpersonal emotion regulation refers to the efforts of utilizing others to regulate one's own emotions. On the other hand, extrinsic interpersonal emotion regulation refers to the efforts of a person to regulate the emotions of others. When interpersonal emotion regulation is response-dependent, the process relies on a specific response of the other. For example, Person A can regulate his/her sadness when Person B responds supportively. In contrast, when it is response-independent, there is no necessity of the particular response of others. Regardless of the response, simply labeling or acknowledging the emotions might help the regulation of emotions (Zaki and Williams 2013). This conceptualization of interpersonal emotion regulation helped to achieve a clear understanding of interpersonal emotion regulation for different sources and targets.

Interpersonal Emotion Regulation and Mental Health

Regulation of negative emotions helps individual to achieve a more comfortable state, and it is related to relationship satisfaction, and more positive and less negative interactions with other people (Lopes et al. 2004, 2005). Besides that, recent research on the regulation of positive emotions has provided evidence for the positive effects of the up-regulation of positive emotions as well. Studies showed that the ability to up-regulate positive emotions might have a buffering effect on the

impacts of negative events and stress (Garland et al. 2010; Fredrickson and Levenson 1998). Similarly, Carl et al. (2013) found that increased down-regulation of positive emotions is associated with depression and anxiety symptoms. Deficits in emotion regulation, on the other hand, are related to the development and the prognosis of psychological problems (Salsman and Linehan 2012; Rottenberg et al. 2005; Campbell-Sills and Barlow 2007; Clyne and Blampied 2004; Sher and Grekin 2007). Indeed, dysregulation of emotions is considered to be a characteristic of more than half of Axis I and all of Axis II disorders (Gross and Levenson 1997).

Although interpersonal emotion regulation has been relatively underexplored, decades of research on social support provides evidence that social support improves well-being both mentally and physically (Cohen 1992; Cacioppo et al. 2010; Berkman et al. 1992; Hobfoll and Vaux 1993), helps to alleviate stress (Cohen and Wills 1985), and improves relationships (Gleason et al. 2008).On the other hand, contrary to expectation, existing research on interpersonal emotion regulation has revealed that regulating negative emotions in interpersonal contexts is significantly associated with difficulties in intrapersonal emotion regulation and mental health problems like depression and anxiety symptoms (Hofmann et al. 2016). These results increased the efforts to understand and differentiate the adaptive and maladaptive types of interpersonal emotion regulation more clearly (Dixon-Gordon et al. 2018). Since most of the studies are cross-sectional, two possible explanations can be given for preliminary results. Firstly, individuals who are already suffering from mental problems or having deficits in intrapersonal resources might be turning to others more frequently in terms of emotion regulation (Hofmann et al. 2016). Secondly, interpersonal emotion regulation itself might be contributing to mental health problems. Hofmann (2014) proposed that regulating emotions in interpersonal contexts may be adaptive when it buffers emotional distress, but it may be maladaptive when it is responsible for the maintenance of the problem. For instance, if the husband of an agoraphobic woman provides his company and reassurance to his wife all the time, this behavior would probably contribute to the maintenance of agoraphobia (Hofmann 2014). Hofmann (2014) suggested that if an individual is becoming dependent on the other person in terms of the regulation of emotions, this might impair the individual's sense of control on the emotion regulation process. Similarly, Marroquin (2011) proposed that long term reliance on interpersonal emotion regulation strategies might be related to psychopathology.

These discussions share some similarities with the discussions on the effects of perceived social support vs. actual social support. Previous research findings supported that positive effect of social support is only accountable for perceived social support, rather than actual social support (Cohen and Wills 1985; Eagle et al. 2018). When support is overtly

provided, it might be interpreted as a sign of inadequacy which might, in turn, impair well being. Similarly, the individual's perception of interpersonal emotion regulation might determine its efficacy or detrimental effects.

Current Study

Considering the dearth of measurement devices in assessing the intrinsic interpersonal emotion regulation, Hofmann et al. (2016) conducted four consecutive studies and developed the Interpersonal Emotion Regulation Questionnaire (IERQ). IERQ is a brief, reliable, and valid self-report questionnaire. Four subscales of IERQ measure intrinsic interpersonal emotion regulation. All the subscales measure the extent to which people refer to others to regulate their own emotions. Among the subscales, "enhancing positive affect" is the only subscale that measures the regulation of positive emotions. It measures the preference to be with others during moments of emotional intensity to increase positive feelings such as joy and happiness. "Perspective taking" refers to being reminded by others that the situation is not that bad and there is no need to worry about it. "Soothing" refers to looking for others for comfort; finally "social modeling" refers observing others for understanding their ways to cope with a situation.

The purpose of the present study was to adapt IERQ into Turkish and test its psychometric properties. Although some other Turkish adaptation studies exist in the literature, we believe that it is necessary to have different adaptation studies for different translations, especially for emotion-related measures. Despite the universality of basic emotions, emotions are one of the most culture-specific topics. Therefore, it is not always easy for researchers to capture the core of the original article. Our translation will be a good option for new researchers to use in future studies.

Method

Participants

In the present study, two different samples were included. Sample 1 was used for all of the analyses, except confirmatory factor analyses. Sample 2 was exclusively used for confirmatory factor analyses. Data was collected by using a snowball sampling method and the inclusion criterion of the study was to be older than 18 years old.

Sample 1 consisted of 272 people (71.3% female, $n = 194$; 28.7% male, $n = 78$). The ages of the participants ranged between 18 and 43 ($M = 24.93$, $SD = 5.06$). The majority of the participants were high school graduates ($n = 156$, 57.4%), the remaining participants were graduates of college ($n = 75$, 27.6%), master ($n = 36$, 13.2%), and doctorate ($n = 5$, 1.8%).

The number of the participants who reported their perceived socioeconomic level as high, middle and low were 48 (17.7%), 194 (71.3%), 30 (11%), respectively.

Sample 2 consisted of 275 people (60.4% female, $n = 166$; 39.6% male, $n = 109$) with ages between 18 and 46 ($M = 24.34$, $SD = 4.97$). Similar to sample 1, most of the participants were high school graduates ($n = 164$, 59.6%). Number of college, master, and doctorate graduates were 78 (28.4%), 28 (10.2%), 5 (1.8%), respectively. Among the participants 48 (17.4%) reported their perceived socioeconomic level as high, 198 (72%) reported as middle, and 29 (10.6%) reported as low.

Instruments

As mentioned earlier, there are not many inventories to measure interpersonal emotion regulation. To our knowledge, there is only one instrument, which is the Emotion Regulation of Others and Self (EROS) (Niven et al. 2011), to measure a similar construct. However, when we review the items of EROS, we realized that the items of it are not measuring the tendency to regulate one's emotions in interpersonal relationships. (Item examples: "I did something nice with someone", "I gave someone helpful advice"). Therefore, we did not prefer to add EROS into our test battery. Since the Difficulties in Emotion Regulation Scale (DERS) showed medium to strong correlation with IERQ in the original study, we decided to use DERS in the current study. Also, since there are findings in the literature that shows a relationship between the emotion regulation difficulties and poorer interpersonal relationships (e.g., Lopes et al. 2005), we included the Inventory of Interpersonal Problems (IIP) to test concurrent validity.

Interpersonal Emotion Regulation Questionnaire (IERQ; Hofmann et al. 2016) The IERQ is composed of 20 items assessing interpersonal emotion regulation and includes four subscales, namely "enhancing positive affect, perspective taking, soothing, and social modeling". Each subscale has 5 items to be rated on a 5 point Likert-type scale. Lower scores on the questionnaire indicate lower reliance on interpersonal emotion regulation. The alpha coefficients of the original measure's subscales ranged from .85 to .91, revealing adequate internal consistency. Regarding the Turkish form of the IERQ, the original scale was initially translated into Turkish by three bilingual professionals who had a strong background in psychology. The translators were native Turkish speakers, but they were very fluent in English. After comparing the translations, the best expressions were chosen by the researchers. Finally, the Turkish form was back-translated by another bilingual professional from the field. The back-translation was consistent with the original items of the scale. The internal consistency reliability of the questionnaire for the present sample was .90.

Difficulties in Emotion Regulation Scale (DERS; Gratz and Roemer 2004) The scale was composed of 36 items measuring six areas of difficulties in emotion regulation, including, difficulties engaging in goal-directed behavior while experiencing negative emotions, restricted access to emotion regulation strategies, non-acceptance of emotions, impulse control difficulties under negative emotions, lack of clarity in terms of emotions, and lack of emotional awareness (Gratz and Roemer 2004). Internal consistency of the original scale was found as .93 for the total score. Cronbach's alpha coefficients for the subscales were found to range between .80 and .89 (Gratz and Roemer 2004). Turkish adaptation of the DERS was initially completed by Rugancı and Gençöz (2010). Internal consistency of the Turkish version was reported as .94 and for the subscales, scores were ranged between .75 and .90. Following this study, Kavcıoğlu and Gençöz (2011) revised Turkish expressions of some of the items and found strong reliability and validity coefficients for the corrected Turkish version. The internal consistency reliability of the scale for the present sample was .94.

Inventory of Interpersonal Problems (IIP-32; Horowitz et al. 2000) The short version of the IIP consists of 32 items with eight subscales; "domineering/controlling", "intrusive/needy", "self-sacrificing", "overly accommodating", "nonassertive", "socially avoidant", "cold-distant", "vindictive/self-centered"; placed along two main dimensions which range from affiliation to nurturance and from control to dominance. The internal consistency of the IIP-32 was found as .93 and test-retest reliability was found as .78. Internal consistency for the subscales ranged between .68 and .87. Turkish adaptation of the IIP-32 was conducted by Akyunus and Gençöz (2016). The internal consistency coefficient for the Turkish scale was reported as .86 for the total score. Reliability of the subscales ranged between $\alpha = $ .66 and .86. The internal consistency reliability of the scale for the present sample was .88.

Procedure

Informed consents were obtained from all the participants. Participants completed the questionnaires via an internet site that was set up exclusively for this study. Before proceeding with data collection, all permissions were taken from the Applied Ethics Research Center.

Results

Principle Component Analysis

To investigate the factor structure of the IERQ Turkish form, exploratory factor analysis (EFA) was performed by using principal component factor analysis with varimax rotation.

Before conducting principal component analysis, the items of IERQ were checked in terms of the accuracy of data entry. Correlation analysis was conducted to investigate whether there was a multicollinearity or singularity problem. Results revealed that there was no correlation coefficient above .80. In order to check the sampling adequacy, Kaiser-Meyer Olkin measure was analyzed and it revealed that the sample was suitable for the factor analysis (KMO =. 889). In addition, the Bartlett test suggested that there is enough correlation among the items for the factor analysis (χ2 (190) = 2907.11, $p < .001$) (Tabachnick and Fidell 2007). Results of the factor analysis revealed four factors with eigenvalues above 1, and scree-plot suggested four-factor structure, similar to the analysis of the original scale, These factors were soothing which explained 18.33% of the total variance; social modeling which explained 17.74% of the total variance; enhancing positive affect which explained 15.11% of the total variance; and perspective taking which explained 13.48% of the total variance. These factors accounted for 64.66% of the total variance.

As can be seen in Table 1, the factor structure of the Turkish version was the same with the original version of the scale, with a slight exception of item 2. Item 2, "It helps me deal with my depressed mood when others point out that things aren't as bad as they seem", was originally under the perspective-taking subscale. However, for the Turkish version, this item cross-loaded to both perspective-taking (.40) and social modeling (.59) subscales. Considering the original structure and the content of the item, it was decided to be kept under perspective-taking factor, as in the original scale.

Confirmatory Factor Analysis

A confirmatory factor analysis was also conducted for IERQ by using AMOS 25 for Windows. A four-factor model was tested. According to the results, IERQ demonstrated a good fit to the model. Although the Chi-square statistic was significant (χ^2 (164, $N = 275$) =440.893, $p < .001$), χ^2: df was lower than the accepted limit 5:1.The other indices revealed a good global fit (GFI = .87, AGFI = .83, NFI = .87, CFI = .91, RMSEA = .08 with a 90% confidence interval .07–.09). The standardized β weights (loadings) for all the items were significant. The loadings for the enhancing positive affect subscale ranged from .66 to .80, the loadings for the perspective-taking subscale ranged from .61 to .80, the loadings for the soothing subscale ranged from .75 to .88, and the loadings for the social modeling ranged from .58 to .88 (see Fig. 1).

Reliability Analyses of the IERQ

The Cronbach alpha coefficients of the subscales were .82 for enhancing positive affect, .79 for perspective-taking, .88 for soothing, and .89 for social modeling. Item total correlations were above .30 for the whole scale and for the subscales.

Table 1 EFA factor loadings

		Factor			
		ST	SM	EPA	PT
9	Feeling upset often causes me to seek out others who will express sympathy.	**.81**	.15	.13	.13
16	I look to other people when I feel depressed just to know that I am loved.	**.78**	.17	.07	.11
19	When I feel sad, I seek out others for consolation.	**.77**	.18	.09	.27
12	I look to others for comfort when I feel upset.	**.76**	.23	.14	.20
4	I look for other people to offer me compassion when I'm upset.	**.72**	.27	.10	.02
11	Seeing how others would handle the same situation helps me when I am frustrated.	.26	**.81**	.12	.24
1	It makes me feel better to learn how others dealt with their emotions.	.16	**.80**	.12	−.07
15	When I'm sad, it helps me to hear how others have dealt with similar feelings.	.36	**.76**	.10	.28
20	If I'm upset, I like knowing what other people would do if they were in my situation.	.28	**.70**	.11	.29
5	Hearing another person's thoughts on how to handle things helps me when I am worried.	.31	**.62**	.24	.21
8	I like being in the presence of others when I feel positive because it magnifies the good feeling.	.11	.15	**.81**	.05
13	Because happiness is contagious, I seek out other people when I'm happy.	.13	.10	**.79**	.12
3	I like being around others when I'm excited to share my joy	.12	.19	**.74**	−.13
18	When I feel elated, I seek out other people to make them happy.	.04	.12	**.71**	.21
6	Being in the presence of certain other people feels good when I'm elated.	.07	.03	**.69**	.08
7	Having people remind me that others are worse off helps me when I'm upset.	.01	.16	.06	**.81**
10	When I am upset, others make me feel better by making me realize that things could be a lot worse.	.13	.27	.10	**.77**
17	Having people telling me not to worry can calm me down when I am anxious.	.39	.13	.04	**.67**
14	When I am annoyed, others can soothe me by telling me not to worry.	.31	.16	.11	**.60**
2	It helps me deal with my depressed mood when others point out that things aren't as bad as they seem.	−.01	.59	.20	**.40**
	Eigenvalue	7.41	2.35	1.74	1.44
	Explained variance	18.33	17.74	15.11	13.48
	Alpha coefficient	.88	.89	.82	.79

Bolded coefficients imply primary factor loadings

ST Soothing factor, *SM* Social modeling factor, *EPA* Enhancing positive affect factor, *PT* Perspective taking factor

Finally, the Guttman split-half reliability of the scale was found as .89 (Part1 $\alpha = .79$ and Part2 $\alpha = .87$).

Concurrent and Criterion Validity of the IERQ

In order to investigate the concurrent validity of the IERQ and its subscales, correlation analyses of IERQ with DERS and IIP were conducted (see Table 2). Correlation coefficients greater than .25 were interpreted. The total score of DERS was found to be positively correlated only with the soothing subscale score ($r = .38, p < .001$). Soothing subscale exhibited positive correlations with impulse, non-acceptance, lack of goals and lack of strategy subscales of DERS as well. The correlations ranged from $r = .31$ to $r = .41$ ($p < .001$). In addition to that, enhancing positive affect subscale showed a negative correlation with the awareness subscale of DERS ($r = −.33, p < .001$).

The results of the correlation analysis between IIP and IERQ revealed a positive correlation between IIP total score and soothing subscale of IERQ ($r = .29$ ($p < .001$). Among the subscales of IIP, intrusive/needy subscale was positively associated with IERQ total score ($r = .31, p < .001$) and the soothing subscale ($r = .32, p < .001$).

In order to investigate criterion validity of IERQ, two groups were formed on the basis of the participants' scores on the IIP total. The "low interpersonal problem" group was composed of the participants within the lowest 33rd percentile, and the "high interpersonal problem" group consisted of the participants within the highest 33rd percentile. Low
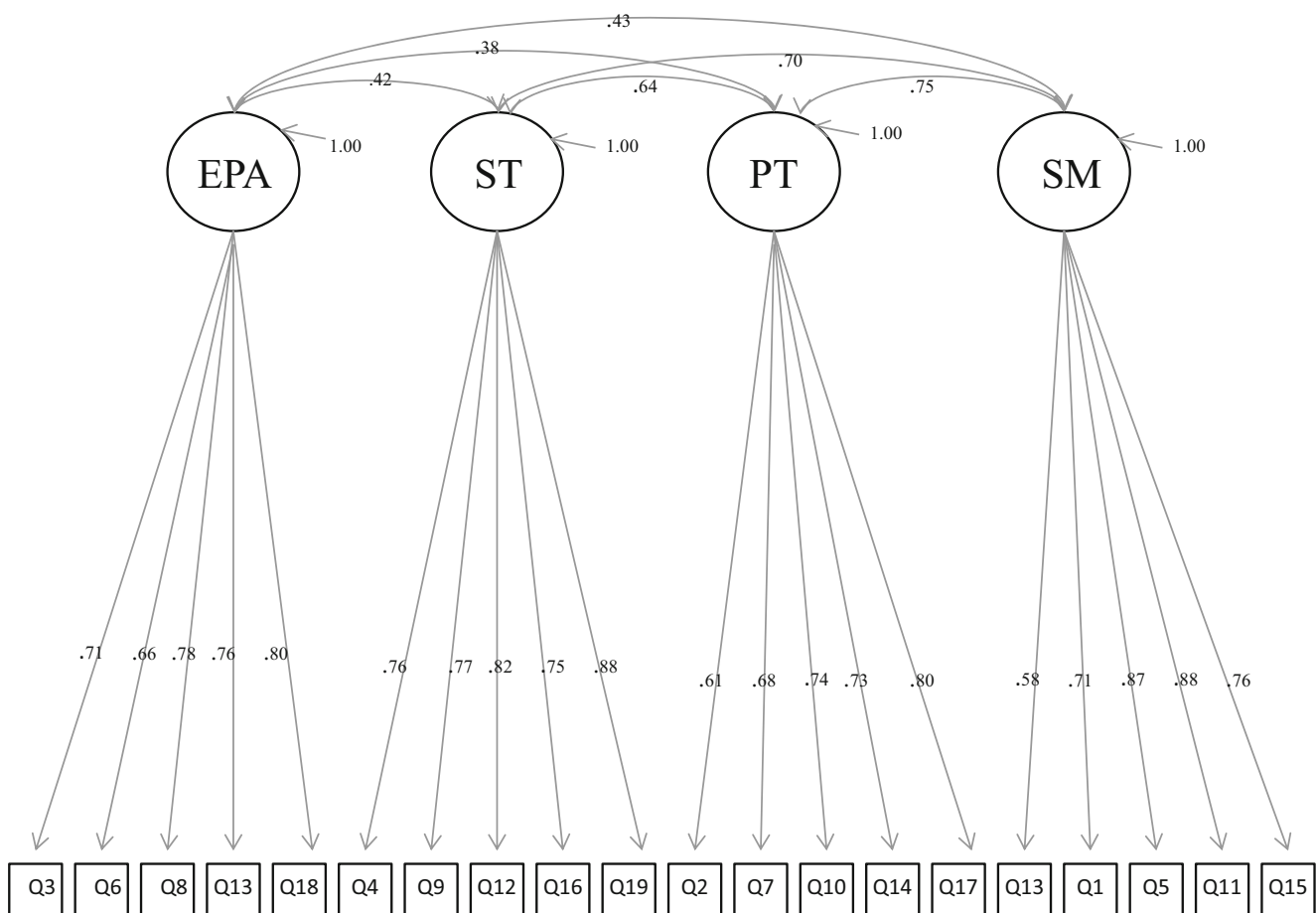
Fig. 1 Confirmatory factor analysis of IERQ. Note: Standardized beta coefficients are presented in the path diagram and all are significant at .05. EPA: Enhancing positive affect; ST: Soothing; PT: Perspective taking; SM: Social modeling.

interpersonal problem group was composed of 91 participants ($M = 1.92$, $SD = 0.2$), and high interpersonal problem group was composed of 100 participants ($M = 2.99$, $SD = 0.34$). To meet the criterion validity, IERQ scores were expected to significantly differ between low and high interpersonal problem groups. In order to investigate the group differences in terms of IERQ total score, a t-test analysis was conducted. Consistent with the expectation, results of the t-test analysis revealed that the participants with low interpersonal problems had significantly lower scores on IERQ total scores ($M = 3.19$ $SD = 0.73$) when compared to those with more interpersonal problems ($M = 3.43$, $SD = 0.62$); $t (189) = -2.53$, $p < 05$.

Discussion

The purpose of the current study was to investigate the psychometric validity and reliability of the IERQ in Turkish samples. Results supported the utilization of IERQ as a measurement tool of interpersonal emotion regulation in Turkish. Internal consistency and split-half reliability coefficients were

satisfactory. Considering the validity studies, both concurrent and criterion validity analyses indicated good results.

The factor structure of the Turkish version of IERQ was found to be similar to the original version. Findings indicated that four factors explain 64.66% of the total variance which was slightly lower than the findings of the original study (which was 68.4%) (Hofmann et al. 2016). However, item 2 ("It helps me deal with my depressed mood when others point out that things aren't as bad as they seem"), which is under the perspective-taking subscale in its original version, cross-loaded on both perspective-taking and social modeling subscales in the present study. By definition, social modeling refers to observing other's way of regulation and get benefit from it (Item examples: "It makes me feel better to learn how others dealt with their emotions", "Hearing another person's thoughts on how to handle things helps me when I am worried"). On the other hand, by utilizing perspective-taking, people try to see a situation from the other's viewpoint (Sample items "Having people remind me that others are worse off helps me when I'm upset", "It makes me feel better to learn how others dealt with their emotions"). Although theoretically, these two concepts may seem different from each other, it is

Table 2 Correlations between total and subscale measures of IERQ, DERS, and IIP

Variable	IERQ Total	Soothing	Social Modeling	Enhancing Positive Affect	Perspective Taking
IERQ- total	1	.80***	.86***	.57***	.78***
Soothing	.80***	1	.57***	.29***	.47***
Social modeling	.86***	.57***	1	.36***	.59***
Enhancing positive affect	.57***	.29***	.36***	1	.29***
Perspective taking	.78***	.47***	.59***	.29***	1
DERS- total	.24***	.38***	.16**	−.06	.16*
Clarity	.08	.15*	.08	−.12*	.06
Awareness	−.19**	−.10	−.17**	−.33***	−.05
Impulse	.27***	.40***	.17**	−.01	.18**
Non acceptance	.26***	.31***	.17**	.09	.18**
Lack of goals	.19**	.33***	.13*	−.01	.08
Lack of strategy	.28***	.41***	.21**	−.01	.16**
IIP- total	.21**	.29***	.16**	−.07	.18**
Domineering	.10	.19**	.03	−.06	.10
Vindictive/self-centered	.04	.11	.03	−.21**	.11
Cold	−.02	.02	.00	−.20**	.06
Socially avoidant	.05	.111	.06	−.20**	.10
Nonassertive	.14*	.23***	.15*	−.05	.05
Overly accommodating	.17**	.21***	.15*	.02	.11
Self-sacrificing	.20**	.20**	.11	.23***	.08
Intrusive	.31***	.32***	.22***	.15*	.21***

*p < .05, **p < .01, ***p < .001

IERQ Interpersonal Emotion Regulation Questionnaire, *DERS* Difficulties in Emotion Regulation Scale, *IIP* Inventory of Interpersonal Problems

possible to think that different perspectives people provide to another reflect their own way of handling situations and their thinking patterns which can be modeled as well. After the content analysis, we decided to keep item 2 under its original factor, however, further investigation with different sample groups is needed to support factorial structure.

In order to examine concurrent validity correlation analysis was conducted with IERQ, DERS, and IIP. Results revealed that four subscales and total score of DERS were related to soothing subscale of IERQ. In other words, when people experience greater difficulty in intrapersonal regulation, they tend to seek soothing in terms of interpersonal emotion regulation. This association could be explained at least from three different points. First, Parkinson and Totterdell (1999) defined two emotion regulation strategies; cognitive and behavioral strategies. Cognitive strategies include the attempts of changing thoughts of the target about a situation (like reframing or reappraisal). Behavioral strategies, on the other hand, refer to changing emotion by giving a message about one's relationship with the target (like buying a chocolate bar). There is supportive evidence that sometimes cognitive strategies might be perceived as an invalidation of emotions and the point of view by the target (Niven et al. 2009; Marigold et al. 2014).

Secondly, current results are consistent with the different nature of emotion regulation from social support or coping. Compared to social support or coping, emotion regulation is short term in nature (Gross et al. 2006). That is to say, people with difficulties in the intrapersonal regulation system may find it hard to benefit from cognitive strategies (like perspective-taking or social modeling) when their need is to get soothed in the short run. Third and finally, these results can be interpreted in line with the findings of the literature on stress and trauma. Lazarus and Folkman (1984) defined stress as "a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being" (p. 19). In terms of emotion regulation, it is possible to assume that people with difficulties in emotion regulation may tend to experience demands vs. resources imbalance frequently. Therefore, the immediate interpersonal needs of people with emotional dysregulation may be comparable to the needs of stressed trauma survivors. Recent research on the effective trauma interventions has emphasized the importance of the promotion of calming, soothing and sense of safety (Hobfoll et al. 2007; Schafer et al. 2016) rather than prematurely or invasively working on the trauma and the change of cognition

(Mcnally et al. 2003). However, further research is recommended to understand the immediate needs of people with emotion regulation difficulties.

The correlation analysis between IIP and IERQ showed that when people's interpersonal problems due to intrusiveness/neediness increase, searching for interpersonal emotion regulation especially in the type of soothing increases as well. This finding is consistent with the nature of being needy or dependent. The intrusive/needy dimension in IIP measures a need for engagement with other people and difficulty in setting interpersonal boundaries (Alden et al. 1990). According to Alden et al. (1990), "High scorers are inappropriately self-disclosing, attention-seeking, and find it difficult to spend time alone" (p.528) (Sample items are "I want to be noticed too much", "I tell personal things to other people too much"). Another possible explanation might be that people who score high on the intrusive/needy dimension of IIP might be having difficulties in intrapersonal emotion regulation. Surprisingly, we could not find an empirical study on the emotion regulation difficulties of the people with intrusive/needy characteristics. However, in the current sample, there was a significant correlation between intrusive/needy interpersonal problems and intrapersonal emotion regulation difficulties ($r = .26$), difficulty to control impulsive behaviors under negative emotions ($r = .27$), and limited access to intrapersonal emotion regulation strategies ($r = .27$).

Results of criterion validity analysis showed that groups having high and low interpersonal problems were significantly different from each other on the basis of IERQ. In other words, compared to those who have low interpersonal problems, those who have high interpersonal problems had significantly higher reliance on interpersonal emotion regulation in terms of the regulation of negative emotions. One possible explanation for this result might be that people with interpersonal problems might not be successful regulators of their own emotions. Indeed, when we examine our data for preliminary evidence, we found that there was a high correlation between high interpersonal problems and dysregulation of emotions ($r = .61$). It can be stated that people with interpersonal problems might be regulating their emotions in interpersonal context due to their lack of intrapersonal regulation abilities. However, further scientific research should be performed to clarify this relationship.

In conclusion, interpersonal emotion regulation appears to be related to the deficiencies in intrapersonal emotion regulation and interpersonal problems. Although existing research revealed that intrapersonal emotion regulation and the support of others are closely associated with emotional well-being, findings on interpersonal emotion regulation suggested the opposite.

Given the frequent utilization of interpersonal emotion regulation in everyday life, it is important to differentiate when and how interpersonal emotion regulation might buffer stress and when and how it might contribute to the maintenance of the problem.

Conclusions and Future Directions

The present study investigated the psychometric properties of IERQ and shed light on the relations between interpersonal emotion regulation, intrapersonal emotion regulation, and interpersonal problems. This study, though, has several limitations. Therefore, readers should evaluate the findings of the study in the context of its limitations. First, the sample was drawn by using snowball sampling method. Hence, some groups might have been underrepresented (i.e males, middle-aged adults, low or high SES group). Future studies should be performed by using different populations. Secondly, in the current study, samples from the general population were used, meaning that generalization of the current results to clinical populations should be made with caution. Future research is needed to support the reliability and validity of IERQ in clinical populations. Lastly, in the present study, the validity of the IERQ was tested by using DERS and IIP, future studies should further examine its convergent and divergent validity by using different concepts.

To conclude, this study presents the adaptation results of IERQ into the Turkish language. Findings revealed satisfactory internal consistency and split-half reliability coefficients. In addition, construct, concurrent, and criterion validity results were satisfactory. The IERQ might be a promising instrument for understanding the role of the interpersonal emotion regulation on psychological well-being. In the future, IERQ can be used by researchers to examine the tendency to utilize different types of interpersonal emotion regulation strategies.

Compliance with Ethical Standards

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