Turkish Psychological Counseling and Guidance Journal

Türk Psikolojik Danışma ve Rehberlik Dergisi



Turgut et al. (2022)

Vol: 12 Number: 67 Page: 529-542 ISSN: 1302-1370

RESEARCH

ARAŞTIRMA

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Open Access

Psychometric Properties of Turkish Version of the Interpersonal Affect Improvement Strategies Questionnaire (IAISQ)

Kişilerarası Duygulanım İyileştirme Stratejileri Ölçeği'nin (KDİSÖ) Türkçe Adaptasyonu ve Psikometrik Özellikleri

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| Authors Information | ABSTRACT |
|---|--|
| Tuğba TurgutResearch Assistant, Fatih SultanMehmet Vakıf University, İstanbul,Turkey tturgut@fsm.edu.trŞeyda ÇetintaşResearch Assistant, Fatih SultanMehmet Vakıf University, İstanbul,Turkey scetintas@fsm.edu.trEda Öztürk BeletLecturer, İstanbul Kültür University,İstanbul, Turkey e.ozturk@iku.edu.trAkif AvcuPhD, Marmara University, İstanbul,Turkey avcuakif@gmail.com | The aim of this study was to adapt the Interpersonal Affect Improvement Strategies Questionnaire (IAISQ) into Turkish population, as well as to examine its validity and reliability estimates. The sample consisted of 610 university students. The original factor structure of the scale was confirmed in Turkish sample by confirmatory factor analysis (CFA). The internal reliability coefficient was found as .75 for overall scale (.74 for Positive Engagement subscale, .63 for Acceptance subscale). Significant correlation coefficients were found between the subscales of IAISQ and Interpersonal Emotion Regulation Questionnaire (IERQ), confirming a good criterion related validity. Overall results suggest that Turkish form of IAISQ is a valid and reliable measure to use for research purposes in order to investigate the Turkish students' interpersonal affect improvement strategies. |
| Article Information | ÖZET |
| KeywordsInterpersonal affect improvement strategies, validity, reliability, confirmatory factor analysisAnahtar KelimelerKişilerarası duygulanım iyileştirme stratejileri, geçerlik, güvenirlik, doğrulayıcı faktör analizi.Article HistoryReceived: 03.12.2020 Accepted: 14.09.2022 | Bu çalışmanın amacı Kişilerarası Duygulanım İyileştirme Stratejileri Ölçeğini (KDİSÖ) Türk popülasyonuna uyarlamak ve geçerlik/güvenirlik değerlerini incelemektir. Çalışmanın örneklemi 610 üniversite öğrencisinden oluşmaktadır. Ölçeğin orijinal faktör yapısı, Türkiye örnekleminde doğrulayıcı faktör analiziyle (DFA) doğrulanmıştır. İç güvenirlik katsayısı ölçeğin tamamı için .75 olarak bulunurken, Pozitif Katılım alt ölçeği için .74, Kabul alt ölçeği için .63 olarak hesaplanmıştır. Ölçeğin ölçüt geçerliği için Kişilerarası Duygu Düzenleme Ölçeği (KDDÖ) kullanılmış olup, KDİSÖ ve KDDÖ alt ölçekleri anlamlı korelasyon katsayıları bulunmuştur. Araştırmanın bulguları, KDİSÖ'nün, Türk öğrencilerinin kişilerarası duygulanım iyileştirme stratejilerini değerlendirmek amacıyla kullanılacak geçerli ve güvenilir bir ölçme aracı olduğunu göstermektedir. |

Cite this article as: Turgut, T., Çetintaş, Ş., Öztürk-Belet, E., & Avcu, A. (2022). Psychometric properties of Turkish version of the Interpersonal Affect Improvement Strategies Questionnaire (IAISQ). *Turkish Psychological Counseling and Guidance Journal*, *12*(67), 529-542. <u>https://doi.org/10.17066/tpdrd.12241121</u>

Ethical Statement: The study was approved by the Fatih Sultan Mehmet Vakıf University Ethics Committee on September 24, 2020 (No: 24/09/2020-28).

INTRODUCTION

Emotions are the biological reactions that emerge in a short span of time and regulate the responses of people to the important life events they experience (Gross & Levenson, 1993). It is possible to list a variety of emotions. Yet the six of them, namely happiness, sadness, disgust, fear, rage, and confusion were described as fundamental (Ekman, 2003). Emotions function as the primary power in organizing individuals' thoughts and behaviors (Dougherty, Abe, & Izard, 1996). They provide important information about the one's interaction with the world and include the reactions regarding the situations encountered during life span. People experience emotions actively in their private, social, and community lives and think that they should manage them (Gross, Richards, & John, 2006). Emotion regulation process includes reaction's magnitude, duration, the time to rise, way of reaching equilibrium, as well was the process of how individuals experience and express emotions (Gross, 1998). Emotion regulation process is important to provide flexibility for the motivation and orientation of the emotions people experience, to protect inner stimulation in behavioral processes and to respond to changing conditions quickly and efficiently (Cassidy, 1994; Thompson, 1991). Emotion regulation consists of intrinsic and extrinsic processes including a person's observation of self- responses, self-evaluation, changing them with appropriate responses and improving them to reach targets. This process comprises a decrease or an increase in the positive and negative feelings and provides balance for an appropriate response to specific situations (Gross, 1999; Langston, 1994; Thompson, 1994).

The basic model explaining the emotion regulation strategies is the process model which divides these strategies into two categories: antecedent-focused and response-focused (Gross, 2001, 2002). According to Gross (2001, 2002) antecedent-focused strategies include a selection of pleasing situations, intervention to situations in order to control feelings, and cognitive changes to control ideas about situations. On the other hand, response-focused strategies include the interpretation and regulation of behavioral and physiological responses resulting from experience with emotions. There are also different strategies for emotion regulation. For example, in cognitive emotion regulation, individuals' cognitive processes are effective, and emotions can be regulated through cognition. Accordingly, cognitive processes help individuals to control their emotions in face of the threatening or stressful events (Garnefski & Kraaij, 2007; Garnefski, Kraaij, & Spinhoven, 2001).

Despite the prevalence of studies on emotion regulation, most of these studies focus on intrapersonal emotion regulation processes, and this shows the need for studies on interpersonal emotion regulation processes (Hofmann, Carpenter, & Curtiss, 2016). Interpersonal emotion regulation is defined as motivation that occurs in a social context, performs as a communicative function among individuals, takes advantage of the presence and support of others in difficult times, and helps to improve others' emotional states (Hoffmann, 2014; Rime, 2007; Zaki & Williams, 2013). It consists of intrinsic and extrinsic forms. While intrinsic form refers to an individual's initiation of social interactions in order to regulate his/her emotional experiences, extrinsic form refers to the process in which an individual regulates another individual's emotions (Zaki & Williams, 2013). Before moving on to the interpersonal effect improvement strategies, the models of Interpersonal Emotion Management (IEM) (Williams, 2007) and the Interpersonal Affect Classification (IAC) (Niven, Totterdell, & Holman, 2009) will be elaborated more.

When emotions do not conform to norms, individuals try to change their emotions to avoid stress (Hochschild, 1983). While this effort was named as "emotion work" by Hochschild (1983), it was named

as "emotion management" by Thoits (1986). This management or work is important to be in healthy, social, and interactional communication. When emotion cannot be changed easily, the situation may be an easier target (Francis, 1997). Building on Gross's (1998) work on emotional regulation of self, Williams (2007) come up with Interpersonal Emotion Management (IEM) and introduced a new classification to the field. According to IEM, people may change their own or others' behaviors by using some strategies that affect different stages and categories of emotional processes. As people can manage their own emotions, they use the same tactics to manage others' emotions (Williams, 2007). IEM is classified as antecedent-focused or response-focused strategies that are specific and distinct from one another. These strategies aim to address other people's negative emotions by reducing them as well as increasing positive ones (Little, Kluemper, Nelson, & Gooty, 2012).

While the IEM aims at strategies to impact emotions, the Interpersonal Affect Classification (IAC) (Niven et al., 2009) considers regulating negative or positive emotions and moods (López-Pérez, Morillo, & Wilson, 2017). IAC focuses on Parkinson and Totterdell's (1999) classification of strategies. First, their classification provides conceptually rooted distinctions between strategies and second, their classification concerns the regulation of effect in terms, emotions, and moods (Niven et al., 2009). Parkinson and Totterdell (1999) classified strategy types based on two main distinctions. The first distinction between strategies took into consideration the implementation type, either cognitively, or behaviorally (Niven et al., 2009). The second distinction was between strategies which led one to engage in a situation or affective state and those which led one to divert attention away from one's current concern (Niven et al., 2009).

Although Parkinson and Totterdell (1999) proposed these distinctions only in relation to affect improvement, Niven et al. (2009) proposed that the same distinctions would apply to affect worsening. Based on this proposal, Niven and colleagues' (2009) theoretical framework differentiated interpersonal affect regulation strategies along three factors: Affect improving vs. affect worsening, cognitive vs. behavioral, and engagement vs. diversion. Niven et al. (2009) suggested that each of these distinctions included different primary means. For example, affect improvement included positive engagement (i.e., any strategy that engages with the target's feelings and cognitions in order to make them feel better) and acceptance (i.e., giving the target attention, diverting their attention away, making the target laugh, and making them feel valued). On the other hand, affect worsening included negative engagement (i.e., any strategy to engage with the target's feelings and behaviors in order to make them feel worse) and rejection (i.e., a lack of care for the target).

There are various scales about the field of emotion regulation, many of which have already been adapted to the Turkish population. For example, Cognitive Emotion Regulation Questionnaire (Garnefski et al., 2001) adapted by Onat and Otrar (2010), Difficulties in Emotion Regulation Scale (Gratz & Roemer, 2004) adapted by Rugancı and Gençöz (2010), Emotion Regulation Questionnaire (Gross & John, 2003) adapted by Eldeleklioğlu and Eroğlu (2015), Emotion Regulation Profile-Revised (Nelis, Quoidbach, Hansenne, & Mikolajczak, 2011), Difficulties in Emotion Regulation Scale-Positive (DERS-Positive; Weiss, Gratz, & Lavender, 2015) adapted by Asıcı, İkiz, and Karaca (2018). Yet, most of them are related to the internal process of emotion regulation. In recent years, the number of studies about the interpersonal emotion regulation process has increased. For instance, Hofmann et al. (2016) have recently developed the Interpersonal Emotion Regulation Questionnaire and Saruhan et al. (2019) conducted the adaptation studies into Turkish.

All in all, the studies on the interpersonal emotion regulation process include getting the help of other people in order to regulate the individual's own emotions. However, Turkish literature is limited about the measurement tools that include strategies to be used to improve the emotional states and moods of other people. In this regard, this study aimed to adapt the Interpersonal Affect Improvement Strategies Questionnaire (IAISQ) to Turkish and examine its psychometric properties. Strategies that individuals can use to improve other people's emotional states and moods will be examined in new research that will be carried out using the adapted scale with this study. In this way, the contribution of individuals to the emotion regulation of others as well as their own emotion regulation processes will be revealed.

METHOD

Participants

The sample was composed of four different groups. The first group of participants included 31 university students who are proficient in English. The data collected from this group was used for the language equivalence of IAISQ. The second group consisted of 634 university students studying at different universities located in İstanbul. The data collected from this group was used for the construct validity of IAISQ. After initial screening of the data, 24 participants were eliminated from the dataset since they provided incomplete or inaccurate data. Thus, final sample included 610 participants, 469 (76.9%) of whom were female and 141 (23.1%) of whom were male. The mean age was 21.30 (SD =3.959). In addition, the third group of participants were also included to the study for criterion-related validity estimates. This group was composed of 51 university students. Finally, the test-retest reliability estimates were conducted in a two-week interval with the fourth group of participants who were composed of 48 students.

Procedures

After the initial permissons were gathered from the authors of the original IAISQ and required ethical approvals were obtained to conduct the adaptation studies, data collection was initiated. During translation process of IAISQ to Turkish, a 5-step model was implemented as suggested by Brislin, Lonner, and Thorndike (1973): translation to the target language, evaluation of the translation, back-translation to the original language, evaluation of the back-translation and receiving expert opinion. At first IAISQ was translated from English to Turkish by 8 field experts. Then, Turkish translations were independently evaluated by other four experts. Following this, back translations of the scale were evaluated, and the Turkish version of the scale was decided.

The English and Turkish form of IAISQ was scored by 31 students registered in a language class, with a 3-week interval, the language equivalence of the scale was confirmed. Confirmatory Factor Analysis (CFA) was performed to confirm the factor structure of the Turkish IAISQ. To determine the criterion validity of the scale, IAISQ and Interpersonal Emotion Regulation Questionnaire (IERQ) were provided to 51 students. The correlation estimates of sub-dimensions of both scales were examined. To calculate the test re-test reliability, the Turkish IAISQ was scored by 48 students at 2-week intervals.

Ethical Statement

Ethical approvals and permissions required to carry out this study were obtained by Fatih Sultan Mehmet Vakıf University Research and Publication Ethics Committee (Approval date and number: 24/09/2020-28).

Data Collection Tools

Interpersonal Affect Improvement Strategies Questionnaire (IAISQ). IAISQ which was developed by Lopez-Perez et al. (2019), is a 5-point Likert scale, ranging from '1=not at all' to '5=extremely'. The scale consists of 10 items and has two dimensions positive engagement and acceptance. The positive engagement dimension consists of cognitive and affective engagement elements, acceptance dimension consists of humor and attention elements. The fit indices of the original scale were found to be acceptable (RMSEA =.072, CFI = .966, TLI =.951). Reliability coefficients were calculated as .82 for positive engagement and .70 for acceptance dimensions.

Interpersonal Emotion Regulation Questionnaire (IERQ). IERQ was developed by Hoffman et al. (2016) and adapted to Turkish by Saruhan et al. (2019). The scale consists of 20 items scored on a 5-point Likert scale. It consists of 4 subscales as enhancing positive affect, perspective taking, soothing, and social modeling. For the subscales reliability coefficients were found as .84, .80, .87, and .85, respectively. For the overall scale, the internal reliability coefficient was found as .91.

Data Analysis

Confirmatory Factor Analysis (CFA) was conducted to examine the construct validity of the IAISQ. CFA is an analysis that examines whether the measurement tool created based on a predetermined theoretical structure, based on testing theories about latent variables, is confirmed by the data obtained (Kline, 2016; Tabachnick & Fidell, 2013). Accordingly, CFA was preferred during the IAISQ adaptation process into Turkish. Mplus 7.3 program was used to perform DFA. Comparative Fit Index (CFI), Chi-Square Goodness Test, Tucker-Lewis Index (TLI), the Root Mean Square Errors of Approximate (RMSEA), and Standardized Root Mean Square Residual (SRMR) were used to determine the goodness of fit of the model tested in confirmatory factor analysis. Acceptable fit values were considered as <5 for $\chi 2/sd$, .08 for RMSEA, .010 for SRMR, .90 for CFI and TLI indices (Kline, 2016; Sümer, 2000; Tabachnick & Fidell, 2001). For linguistic equivalence, paired-sample t-test and Pearson product-moment correlation analysis were performed; for criterion validity, Pearson correlation analysis was performed; and for reliability, Cronbach's alpha reliability coefficient, paired-sample t-test, and Pearson correlation analysis were performed. Those analyzes were carried out using the SPSS 23 Package Program.

RESULTS

Linguistic Equivalence

The English form and Turkish form of the IAISQ were respectively administered to 31 students who have mastered both Turkish and English in a 3-week interval. Paired sample t-test was carried out to examine whether there was a significant difference between the sub-dimensions of the scale. Pearson Product-Moment Correlation was carried out to determine the relationships between the scores of the sub-dimensions. The results of the statistical analysis performed on linguistic equivalence are presented in Table 1.

| Dimension | Practice | x | SD | t | df | Þ | r |
|---------------------|--------------------------------|--------|-------|-------|----|------|-------|
| Positive Engagement | Turkish Form | 33.193 | 4.206 | 2 002 | 30 | .054 | 00/* |
| | English Form | 32.193 | 4.629 | 2.002 | | | .806* |
| A | Turkish Form | 15.129 | 2.837 | 500 | 20 | (01 | 705* |
| Acceptance | English Form 14.935 2.337 .528 | 30 | .601 | .705* | | | |

Table 1. Findings to Determine Linguistic Equivalence

*p<.001

Table 1 shows the results of Paired Sample t-test and Pearson Correlation performed between the subdimensions of the Turkish and English forms of the scale applied at 3-week intervals. Results indicated that the mean scores of the Turkish and English forms of the scale did not differ significantly in the positive engagement dimension (t = 2.002, p > .05) and acceptance dimension subscales (t = 52, p > .05). Significant positive correlations were found across the positive engagement dimensions (r = .806, p < .001) and acceptance dimensions (r = .705, p < .001) of Turkish and English forms. Findings confirmed that the scale gives similar results in both languages and has linguistic equivalence.

IAISQ's Structure Validity

CFA was performed in order to examine the validity of the original structure of the IAISQ in Turkish culture. In the original form, the positive engagement subscale consisted of 6 items (1, 2, 3, 4, 8, 10) and acceptance subscale consisted of 4 items (5, 6, 7, 9). In addition, items 6, 7, and 8 were loaded on both factors. The results of the CFA testing of the original model suggested that acceptable model fit was achieved (First model $\chi^2/df = 3.64$, RMSEA =.066, CFI =.934, TLI =.905, SRMR = .044). Yet, it was found that the path coefficient of the item 8 in the acceptance dimension was not significant (r = .080, p > .05). For this reason, the path of item 8 in the acceptance dimension was removed and item 8 was allowed to load only on positive engagement dimension. Following this, CFA has performed again (see Table 2).

| Fit Indices | Model Fit | Good Fit | Acceptable Fit |
|-------------|-----------|---------------------------------|----------------------------------|
| χ2/df | 3.59 | $0 \le \chi 2/df \le 2$ | $2 \le \chi 2/df \le 5$ |
| CFI | .933 | $0.95 \le CFI \le 1.00$ | $0.90 \le CFI \le 0.95$ |
| RMSEA | .065 | $0 \leq \text{RMSEA} \leq 0.05$ | $0.05 \le \text{RMSEA} \le 0.08$ |
| TLI | .906 | $0.95 \le \text{TLI} \le 1.00$ | $0.90 \leq \text{TLI} \leq 0.95$ |
| SRMR | .045 | $0 \leq \text{SRMR} \leq 0.05$ | $0.05 < \text{SRMR} \le 0.10$ |

Table 2. Fit Indices and Threshold Values Used in Confirmatory Factor Analysis

The results suggested that the modified model provided acceptable level of fit to the data ($\chi 2$ / df = 3.59, RMSEA = .065, CFI = .933, TLI = .906, SRMR = .045) (Hu & Bentler, 1999; Marsh, Wen, Hau, & Nagengast, 2006; Schermelleh-Engel, Moosbrugger, & Müller, 2003; Sümer, 2000; Tabachnick & Fidell, 2001). The two-dimensional factor structure and factor loadings of the scale items in the Turkish sample are provided in Figure 1.

According to the findings, factor loadings varied from .209 to .770 in the positive engagement dimension, and from .213 to .739 in the acceptance dimension. All factor loadings were found to be significant at the .001 level. These findings show that each item is sufficiently loaded by the sub-dimension to which it belongs. According to these findings, the CFA obtained by subtracting item 8 from the acceptance dimension seems to fit the model. Unlike the original structure of the scale, item 8 is only included in the positive engagement dimension in the Turkish sample, the content of item 8 for the Turkish people does not seem to be related to the acceptance dimension. When evaluated in general, the model has been verified, and the original structure of the IAISQ is also valid for the Turkish version.

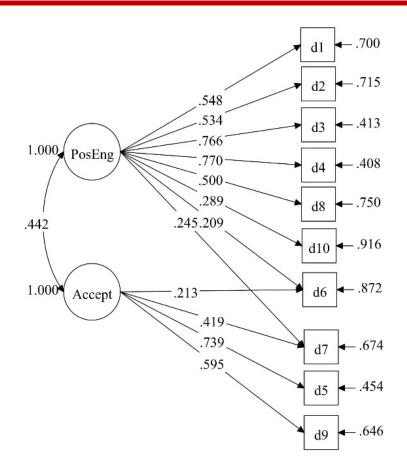


Figure 1. Path Diagram of IAISQ and Factor Loadings *Note*: PosEng: Positive Engagement, Accept: Acceptance

Criterion-Related Validity

The criterion-related validity of IAISQ was tested using the Interpersonal Emotion Regulation Questionnaire (IERQ) with 51 students. Pearson Product-Moment Correlation was carried out to examine the relationships between the sub-dimensions of IAISQ and IERQ. The statistical findings are presented in Table 3.

Table 3. Relationships Between Sub-dimensions of IAISQ and IERQ

| 1 | | | | |
|---------------------|---------------------------|--------------------|----------|-----------------|
| | Enhancing Positive Affect | Perspective Taking | Soothing | Social Modeling |
| Positive Engagement | .495* | .425** | .374** | .542* |
| Acceptance | .239 | .448** | .461** | .341*** |
| | | | | |

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

As it is shown in Table 3, there are moderately positive significant relationships between the positive engagement sub-dimension and the sub-dimensions of IERQ [enhancing positive affect (r=.495; p<.001), perspective taking (r=.425; p<.01), soothing (r=.374; p<.01), social modeling (r=.542; p<.001)]. There are moderately positive significant relationships between the acceptance sub-dimension and the three sub-dimensions of IERQ [perspective taking (r=.448; p<.01), soothing (r=.461; p<.01), social modeling (r=.341; p<.05)]. Significant relationships between the sub-dimensions of IAISQ and IERQ, indicating that the criterion validity of the scale was provided. There was no significant relationship only between acceptance and enhancing positive affect (r=.239; p>.05).

Reliability of IAISQ

In order to test the reliability of IAISQ, Cronbach's alpha reliability coefficients (see Table 4) and testretest reliability coefficients (see Table 5) were calculated for sub-dimensions.

| Sub-dimensions | Item Number | Cronbach Alpha |
|---------------------|-------------|----------------|
| Positive Engagement | 8 | .740 |
| Acceptance | 4 | .630 |
| Total | 10 | .754 |

Table 4. Findings Regarding Internal Consistency Reliability Analysis

For the acceptable reliability, the Cronbach's alpha values are required to be .70 and above. When the sample is large enough, the values below .70 can be tolerated due to the low number of items in some sub-dimensions (Kline, 2016). Considering this, Cronbach's alpha coefficients presented in Table 4 are acceptable, ranging from .630 to .754.

In order to examine the test-retest reliability of Turkish IAISQ, the scale was administered to 48 university students in 2-week intervals. Paired sample t-test was performed to compare the mean scores of subdimensions of the scale in the first and last administrations. Also, correlation coefficients were calculated. The findings are presented in Table 5.

Table 5. Findings Regarding Test-Retest Reliability of IAISQ

| Dimension | Practice | x | Sd | t | df | р | r |
|---------------------|-----------|---------|--------|---------|----|------|--------------|
| Positive Engagement | Pre-Test | 32.5288 | 4.2941 | (20) | 47 | .532 | 520 * |
| | Post Test | 32.8750 | 3.4309 | 629 | | | .532* |
| Acceptance | Pre-Test | 14.1667 | 2.8830 | 1 1 1 0 | 47 | .272 | |
| | Post Test | 14.5000 | 2.8806 | -1.112 | | | .740* |

*p<.001

The results suggested that the pretest and posttest scores did not differ significantly in the positive engagement dimension (t =-.629, p>.05) and acceptance dimension (t=-1.112, p>.05). Also, there were positive relationships between the pretest and posttest scores of positive engagement (r=.53, p<.001) and acceptance subscales (r=.740, p<.001). According to the findings, the scale gives similar results and has reliability in both implementations.

DISCUSSION, CONCLUSION AND SUGGESTIONS

This study aimed to conduct the adaptation of IAISQ to Turkish. First, the translation of IAISQ from English to Turkish was carried out. This process was followed by back translation and the final version of the Turkish form was decided. In order to evaluate the language validity, English and Turkish forms were administered at a 3-week interval and linguistic equivalence was confirmed. Following this, CFA was performed in order to test whether the original structure of the scale was confirmed with the current data. Results indicated that model fit indices were acceptable. Since the path coefficient of item 8 in the acceptance dimension was not significant, factor loading of this item was removed from the acceptance dimension and CFA has performed again. With this modification, the fit indices were found to be acceptable and all factor loadings were found to be significant at .001 level. In the final version of the scale, it was determined that the positive engagement dimension included items 1, 2, 3, 4, 6, 7, 8, 10, and the acceptance dimension included items 5, 6, 7, 9.

Moreover, significant positive correlation coefficients between the sub-dimensions of IERQ and IAISQ confirmed the criterion validity of Turkish IAISQ. Internal consistency estimates of IAISQ's subscales indicated that the scale is reliable. Also, test-retest reliability estimates confirmed the stability of IAISQ over time. Overall analyses regarding the validity and reliability of IAISQ showed that the scale is a valid and reliable measurement tool to assess interpersonal affect improvement strategies.

In Turkish literature, the study area of emotion regulation generally focuses on internal structures, yet there is a growing interest in the interpersonal emotion regulation processes. Recently, Saruhan and colleagues (2019) conducted Turkish adaptation studies of the Interpersonal Emotion Regulation Questionnaire (Hofmann et al., 2016) which includes getting help from other people in order to regulate the individual's own feelings in interpersonal processes. However, there is no Turkish measurement tool that focuses on strategies to be used to improve the emotional state and moods of other people. In this regard, this study is believed to make an important contribution to the field by providing a new measurement tool that can be used for scientific reasons in the future.

Due to the short response time of the scale and its easy application, it will enable it to be used in new researches. Based on the results of the research, several suggestions can be made. The use of the scale in different studies and samples may contribute to the understanding of the psychometric properties of the scale. In quantitative studies to be carried out using this scale, the relationship between interpersonal affect improvement strategies and different variables can be examined. Examination of their relations with different concepts may be beneficial both in terms of better understanding the psychometric properties of the research on emotion regulation by revealing the connections with different variables. In addition, experimental studies can be carried out to apply interpersonal affect improvement strategies and to reveal the change in individuals. In these experimental studies, the scale we adapted can be used to measure the changes in individuals.

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Appendix

Turkish Form of the Interpersonal Affect Improvement Strategies Questionnaire (IAISQ)

| | | Kesinlikle Katılmıyorum | Katılmıyorum | Kararsızım | Katılıvorum | Kesinlikle Katılıyorum |
|----|--|-------------------------|--------------|------------|-------------|------------------------|
| 1 | Arkadaşlarım bir durum hakkında kafa karışıklığı yaşadığında, onlarla beraber farklı seçenekleri değerlendiririm. | 1 | 2 | 3 | 4 | 5 |
| 2 | Bir yakınım sinirli göründüğünde, kendisini daha iyi hissetmesi için bir şeyler yapmaya çalışırım. | 1 | 2 | 3 | 4 | 5 |
| 3 | Arkadaşım bir konu hakkında sıkıntı yaşadığında, nedenlerini düşünmesine yardımcı olurum. | 1 | 2 | 3 | 4 | 5 |
| 4 | Arkadaşım sorun yaşadığında, onunla her zaman onu neyin endişelendirdiği hakkında konuşurum. | 1 | 2 | 3 | 4 | 5 |
| 5 | Arkadaşımın morali bozuk olduğunda, ona şaka yaparım. | 1 | 2 | 3 | 4 | 5 |
| 6 | Ailemden biri üzgün olduğunda, onu farklı bir ortama götürmeye çalışırım. | 1 | 2 | 3 | 4 | 5 |
| 7 | Bir şeyin arkadaşımı üzdüğünü fark ettiğimde, ilgisini başka yere çekmeye çalışırım. | 1 | 2 | 3 | 4 | 5 |
| 8 | Bir yakınım yanıma üzgün bir şekilde geldiğinde, daha önce benzer bir durumun üstesinden çok iyi geldiğini hatırlatırım. | 1 | 2 | 3 | 4 | 5 |
| 9 | Genellikle arkadaş ortamında onları güldürmek için şaklabanlıklar yaparım. | 1 | 2 | 3 | 4 | 5 |
| 10 | Çalışma arkadaşım bir problem karşısında öfkelendiğinde, her zaman sıkıntısını dışa vurmasına izin veririm. | . 1 | 2 | 3 | 4 | 5 |

Kişilerarası Duygulanım İyileştirme Stratejileri Ölçeği

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Author Contribution

This study was conducted by all the authors working together and cooperatively. All of the authors substantially contributed to this work in each step of the study.

Conflict of Interest

It has been reported by the authors that there is no conflict of interest.

Funding

No funding support was received.

Ethical Statement

The study was approved by the ethical committee of Fatih Sultan Mehmet Vakıf University on September 24, 2020 (No: 24/09/2020-28). In addition, consent forms were obtained from all participants included in the study.

Ethics Committee Name: Ethical Committee of Fatih Sultan Mehmet Vakıf University Approval Date: 24/09/2020 Approval Document Number: 28