



# I love you but I can't say: adaptation of the Measure of Verbally Expressed Emotion (MoVEE) to Turkish and investigation of psychometric properties

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## Abstract

This study aims to adapt the scale of “The Measure of Verbally Expressed Emotion” into Turkish and examine its psychometric properties. 614 participants were between the ages of 18–65. In the study, the Expression of Emotions Scale was used for convergent validity, and the Emotional Responsiveness Scale was used for divergent validity. According to the exploratory factor analysis, the scale has a 17-item and five-factor structure that explains approximately 66% of the total variance, and according to the confirmatory factor analysis, the goodness-of-fit values of the five-factor structure are acceptable ( $\chi^2/df=2.98$ , RMSEA=0.059, GFI=0.94, CFI=0.84, SRMR=0.050). This scale, which evaluates the experience before expressing emotion, is valid and reliable for Turkish use. Expressed emotions compared on gender, education level, working and health status. It was observed that those with a psychiatric diagnosis were less comfortable expressing romantic love, and those with chronic diseases were less comfortable expressing happiness. Adapted scale will contribute to both research and practical use by using it in clinical, social psychology, and therapy studies.

**Keywords** Psychometrics · Emotion · Verbal emotional expression · tests/questionnaires · Cross-cultural study

## Introduction

Emotions can be defined as action propensities that develop over time, direct behavior, and prepare organisms to respond to their environment through desired and natural protective states (Kring & Sloan, 2009). Aside from the expression, experience, and physical manifestation of an emotion, emotional reactions also include a variety of components, including several cognitive processes that help interpret or evaluate the state that triggered the emotional response (Kring & Sloan, 2009).

Current studies have revealed a link between difficulties expressing emotions and ambivalence, which are components of emotion, and negative personal issues such as difficulty in adapting to support from others, marital

dissatisfaction, back pain, psychological distress, anxiety and lower psychological well-being (Mongrain and Vattese, 2003; Carson et al., 2007; Barr et al., 2008; Ivanova & Watson, 2010; Nayla et al., 2014; Kunst et al., 2019; Vore, 2020; Zhou et al., 2022). In addition to the negatively experienced difficulties in emotional expression in interpersonal relationships, the expression of emotion also relays information about the subject, objects, and events in the social environment. Social interactions rely in part on knowledge about the intentions and sentiments of others. Emotional expression provides insight into the inner moods and tendencies of others, which in turn lends assistance to coordinate social interactions. (Keltner & Kring, 1998).

Keltner and Kring (1998), who proposed a social-functional theory of emotion, opined that emotions help coordinate social interactions through their informative, evocative, and stimulating functions. They also scrutinized several psychopathologies (depression, schizophrenia, social anxiety, and borderline personality disorder) in emotional and social contexts, referring to the purpose and significance of emotional expression.

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Kennedy-Moore and Watson (2001), reviewed “How and when does emotional expression help?” and mention that the paradox of distress expression is that expressing unpleasant emotions may be a coping mechanism as well as a symptom of discomfort. The advantages of expressing discomfort originate from interpersonal or cognitive processes. While expressing sorrow is not in and of itself an adaptive objective, it may be a useful strategy for developing self-acceptance, self-understanding, or stronger social bonds. Emotions may provide insight into how oneself and one’s environment interact. Processing and communicating this information may be done through expression, which can be done in maladaptive or adaptive ways. Expression of distress can, when done appropriately, promote better knowledge or improved acceptance of one’s feelings. Additionally, it can immediately change someone else’s conduct in the direction that is intended or even clear up interpersonal misconceptions (Kennedy-Moore and Watson, 2001). When the expression is maladaptive, it makes people feel worse by creating emotions of shame or guilt, rehashing issues rather than resolving them, or harming relationships with others (Kennedy-Moore and Watson, 2001).

It is related to comprehending the meaning and purpose of emotions as well as their relationship to psychopathologies, interpersonal interactions, the emotional expression that manages social connections, and the self-acceptance of the individual. Considering all of this, the purpose of this study was to adapt The Measure of Verbally Expressed Emotion (MoVEE) into Turkish and assess its psychometric qualities using a “Duyguların Sözel İfadesi Ölçeği.” While developing the MoVEE scale, although emotional expression conceptually covered “individuals’ visibly manifesting their emotions” as similar to Kring’s (1994) definition, it was defined as the comfort in assessing various emotional states (love, anger, happiness, sadness) and evaluating the displayed emotion to the others (Jacobson et al., 2015). In this sense, the Measure of Verbally Expressed Emotion aims to measure the reassurance in verbally expressing one’s feelings with others (i.e., how willingly and comfortably individuals share their feelings with others).

The measures designed to capture emotional experience, awareness, and expressiveness are crucial for the success of such therapeutic procedures (Sloan & Kring, 2007). Studies reported several measuring scales ((The Emotional Expressivity Scale (Kring et al., 1994); Berkeley Expressivity Scale (Gross and John, 1995); and Emotional Expression Scale (King & Emmons, 1990) developed to evaluate emotional expression effectively used in psychotherapy with adults (Sloan & Kring, 2007; Jacobson et al., 2015). The scales assessing the emotional

expression available in Turkish are described below. The Berkeley Emotional Expressivity Scale (Gross and John, 1995) and Emotional Expression Scale (King & Emmons, 1990) have been adapted into Turkish; however, the vast majority of the existing scales seem to evaluate emotional expressions broadly or categorize them under the parameters of expressiveness, impulsiveness, concealment, expression of both positive and negative emotions, and intimacy. Consequently, the measures currently in use arguably analyze emotional expression basic and categorically, cannot specifically address emotions and cannot measure comfort in emotional expression.

Upon closer examination, it becomes evident how the three emotional expression measures utilized in Turkey vary from MovEE. Gross and John (1995) created the Berkeley Expressivity Scale to explore the emotional expression characteristics of individuals. The scale included sub-dimensions, such as positive expressivity, negative expressivity, and impulse strength; however, the parameters in its Turkish adaptation study retained different categories. Although the Turkish scale also consists of three parameters, they have been renamed ‘Emotional Expressiveness, Concealment, and Impulse Strength’ (Akin, 2011).

King and Emmons (1990) developed a scale for emotional expressiveness to measure typical emotional expressions. “Positive Emotional Expression,” “Affinity Expression,” and “Negative Emotional Expression” are its three sub-dimensions. The scale provides information about interpersonal relationships as well as emotional expressions that are independent of interpersonal relationships (Kuzucu, 2011).

In addition to the above mentioned measures, Araz and Erkuş (2014) developed the Emotion Expression Styles Inventory (EESI) with three scales. This inventory aspired to identify the emotional expression styles of individuals towards the happiness, sadness, and anger parameters experienced. The EESI is also a data collection tool consisting of three different scales and 50 items [the Happiness Expression Style Scale (8 items), the Sadness Expression Style Scale (19 items), and the Anger Expression Style Scale (23 items)]. Accordingly, the scales constituting this inventory retain several questions; for instance, the Happiness Expression Style Scale includes queries about self- and other-oriented expression factors. The Sadness Expression Style Scale contains queries about factors such as self-face reflection, aggressive expression, verbal expression, hiding, and procrastination. Finally, the Anger Expression Style Scale focuses on questions concerning verbal aggression, self-face reflection, retaliation, calmness, and procrastination. The EESI evaluates verbal and nonverbal

expressions; however, in this case, the manifestation of emotion is towards the individual inducing that emotion.

In brief, the scope and relevance of existing measurement tools to identify confinements in expressing emotions remain limited. The limitations of these scales are that they broadly assess the difficulty in emotional expressions or simply the relationship of emotions (positive, negative, etc.) that have a particular significance with psychological or physical stress; in other words, the assessments are not specific to emotion. Our aim was to adapt a measure of overall comfort expressing one's emotions to others into Turkish in order to further investigate the relationship between difficulties expressing both positive and negative emotions and various indicators of distress (including desire to and ease of expressing and comfort with others knowing one's feelings). This study is expected to make a significant contribution to Turkish clinical practices and academic research because lack of Turkish scale exists for comfort in expressing emotions and, the subjective measurement of emotions (love, happiness, sadness, and anger).

In addition to the individual, relational, and social components of emotional expression, it appears that it is associated with many psychopathologies and has a significant role in many therapies. Accordingly, this study aimed to generate a new scale in the Turkish language and analyze culture-specific findings. It additionally strived to introduce a measurement tool to the literature

for research in psychotherapy, clinical psychology, and social psychology domains.

## Method

### Sample

The study sample consisted of individuals aged between 18 and 65, living in Turkey and speaking Turkish. The random sampling method was used while contacting the participants.

A total of 614 individuals participated in the study. Eight individuals, who were not between the 18–65 age group, 27 individuals in the outlier analysis, and an individual who failed to specify gender data, were excluded from the study sample. As a result, the number of individuals analyzed remained at 578. Table 1 displays the demographic information of the participants.

### Measurements

The study used the Personal Information Form, Measure of Verbally Expressed Emotion, Emotional Expressivity Scale, and Emotional Reactivity Scale. All the scales used in the study were self-rating scales. All participants provided their informed consent forms.

### The personal information form

This form included the sociodemographic (age, gender, educational status, health status) data of the participants.

The Measure of Verbally Expressed Emotion (MoVEE): As developed by Jacobson et al. (2015), the MoVEE assesses the comfort in emotional expression and includes comfort in expressing four different emotions: happiness, anger, love, and sadness (i.e., 'It is easy for me to display it when I am happy'). The scale consists of 19 items in a 4-point Likert type, graded as 1 (strongly disagree) to 4 (strongly agree). High scores indicate high comfort in expressing emotion. The internal consistency coefficients for love, happiness, anger, and sadness were 0.89, 0.82, 0.86, and 0.69, respectively. Dr. Jacobson, the responsible author, granted permission for the Turkish adaptation study. In this study, reliability coefficients for Turkish version for romantic love, anger, sadness, love, happiness were 0.73, 0.77, 0.68, 0.82, 0.78, respectively. Table 2 provides findings regarding the factor structure and item-total correlations of the MoVEE-TR. Table 3 shows the results of correlation analyses that determined the convergent and discriminant validity levels of the relationships between the subscales of the MoVEE-TR.

**Table 1** Sociodemographic information of participants

		n	%
Gender	Female	362	62.6
	Male	216	37.4
Marital status	Single	287	49.7
	Married	272	47.1
	Divorced	16	2.8
	Widow	3	0.5
Education level	Primary education graduate	8	1.4
	High school graduate	50	8.7
	University student	142	24.6
	College graduate (2 years)	24	4.2
	University graduate (4–6 years)	247	42.7
Working status	Master/ PhD graduate	107	18.5
	Yes	341	59
Income level	No	237	41
	0- 4.999	192	12.1
	4.500- 8.999	173	39.8
	9.000- 13.499	138	27.7
	13.500-17.999	31	10.5
Chronic Disease	18.000 and more	44	9.0
	Yes	95	16.4
Psychiatric Disease	No	483	83.6
	Yes	64	11.1
	No	514	88.9

**Table 2** Findings regarding the factor structure and item-total correlations of the MoVEE-TR

Factor names, item numbers and item contents	FL <sup>1</sup>	CV <sup>2</sup>	ITC <sup>3</sup>
<i>Romantic love. 3 items. Eigenvalue = 5.01.</i>			
<i>Explained Variance = %29.47.</i>			
Item 15	.75	.63	.56
Item 19	.78	.62	.55
Item 17	.72	.66	.53
<i>Anger. 3 items. Eigenvalue = 2.09.</i>			
<i>Explained Variance = %12.27.</i>			
Item 8	.87	.76	.68
Item 16	.81	.67	.59
Item 3	.78	.64	.56
<i>Sadness. 3 items. Eigenvalue = 1.73.</i>			
<i>Explained Variance = %10.15.</i>			
Item 12	.77	.61	.51
Item 5	.77	.61	.49
Item 9	.71	.60	.49
<i>Love. 4 items. Eigenvalue = 1.25.</i>			
<i>Explained Variance = %7.36.</i>			
Item 4	.82	.77	.71
Item 1	.85	.71	.68
Item 7	.68	.68	.64
Item 10	.57	.58	.56
<i>Happiness. 4 items. Eigenvalue = 1.10.</i>			
<i>Explained Variance = %6.46.</i>			
Item 11	.67	.61	.57
Item 18	.67	.65	.63
Item 2	.64	.61	.60
Item 14	.64	.58	.55

<sup>1</sup>FL: Factor load; <sup>2</sup>CV: Common variance; <sup>3</sup>ITC: Item-total correlation

**Table 3** Correlations between subscales of the MoVEE and scales

	1	2	3	4	5
1. Happiness	1	.47**	.17**	.36**	.21**
2. Love		1	.14**	.47**	.39**
3. Anger			1	.02	.15**
4. Romantic love				1	.38**
5. Sadness					1
6. ERS	.08	-.02	-.02	-.16**	-.24**
7. EEQ	.38**	.30**	.15**	.20**	.06

ERS: Emotional Reactivity Scale Total Scores; EEQ: Emotional Expression Questionnaire Total Scores. \*\* $p < .01$

Emotional Expressivity Scale (EES): King and Emmons (1990) created this scale to evaluate general emotional expressions. Subsequently, Kuzucu (2011) adapted the scale to the Turkish language. The scale was a 7-point Likert-type (1-strongly disagree, 7-strongly agree), included 16 items graded, and consisted of three sub-dimensions: “Positive Emotional Expression,” “Affinity Expression,” and “Negative Emotional Expression.” As determined by the Cronbach Alpha coefficient, the internal consistency coefficient of the scale was 0.78, and high scores implied a higher propensity for emotional expression. This study calculated the internal

consistency coefficient as 0.87. For the scale’s validity assessment in this study, exploratory factor analysis (EFA) was carried out for construct validity, the scale had 3 constructs and valid (KMO=0.90; Barlett  $\chi^2(105)=3251.62$ ,  $p < .001$ ) as in original. The scale provided information about interpersonal relationships and emotional expressions independently of interpersonal relationships. The adaption study performed in this research will be used for the convergent validity of the scale.

Emotional Reactivity Scale (ERS): Nock et al. (2008) created the scale to measure individuals’ levels of emotional reactivity. The scale is a 4-point Likert-type (1 = strongly disagree, 4 = strongly agree), features 17 items, and comprises three sub-dimensions: “sensitivity, reactivity, and endurance.” Seçer et al. (2013) adapted the scale to the Turkish language. The internal consistency coefficient was 0.94 in the original study, and the adaptation study identically identified it as 0.94. This study, however, identified the internal consistency coefficient as 0.90. For the scale’s validity assessment in this study, exploratory factor analysis (EFA) was carried out for construct validity, the scale had 3 constructs and valid (KMO=0.91; Barlett  $\chi^2(136)=4505.14$ ,  $p < .001$ ) as in original. This study will utilize the Emotional Reactivity Scale for the discriminant validity of the scale in which the adaptation study was conducted.

## Process and procedure

The study primarily received approval from the Ethics Committee of the Istanbul University Social and Human Sciences Research. Individuals who voluntarily endorsed the consent form with online surveys generated through Google Surveys participated in the research online. The link to participate in the study was shared in e-mail groups and social media (Instagram, WhatsApp, Facebook).

Initially, the scale was translated from English to Turkish by a doctoral faculty member and researcher psychologist expert in the psychology discipline. After comparing these two translations, the final version was shared by two independent linguistics for counter-translation; hence, the scale was translated again from Turkish to English. Five separate expert psychologists with competence in the linguistic field provided their opinions. After comparing the original text, translated texts, and expert assessments, the scale was translated into English and forwarded to Dr. Jacobson, and the scale version in Turkish was finalized following the necessary arrangements.

## Analytic plan

The study analyzed the gathered data using the IBM SPSS Statistics 25.0 program. Statistical analysis in scale

adaptation studies included construct validity, sampling adequacy, internal consistency, factor rotation, factor identification, and item deletion. The analysis is carried out using the appropriate software to assess the predetermined analysis stages. The factor analysis is performed to evaluate the factor structure. Exploratory and confirmatory factor analysis are the two components of factor analysis. Exploratory factor analysis in the form of principal component analysis with varimax rotation appears to be the most preferred option (Arafat et al., 2016).

Confirmatory factor analysis (CFA) was performed using the Lisrel 8.5.1 program, meeting some specific criteria for the CFA fit index used within the framework of the structural equation model. For a reliable ‘fit index,’ the ratio of  $\chi^2$  value to degrees of freedom ( $\chi^2/df$ ) should be less than five, the comparative fit index (CFI) and goodness of fit-index (GFI) should be at least 0.90, and the error variance—root mean square error of approximation (RMSEA)—and the standard variance—standardized root mean squared residual (SRMR)—should not exceed the value of 0.08 (Simsek, 2007). Additionally, the study used Pearson correlation to analyze relationships with the scales determined for convergent and discriminant validities. It also calculated the Cronbach Alpha and Guttman Split-Half Coefficient values. The Independent sample t-test was employed to compare gender differences after completing the adaption study of the scale. The Independent sample t-test was also used to compare health status and emotions.

## Results

### Construct validity and reliability

Item-total correlations were analyzed within the context of item analysis in this study, which tested the construct validity and reliability of the MoVEE-Turkish (TR). No item value was below 0.20 in the item-total correlations calculated to test item discrimination. Both the Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett test of sphericity

provided evidence that the number of cases in the sample and the data distribution was fitting for Explanatory Factor Analysis (EFA) (KMO=0.87; Barlett  $\chi^2(171)=3983.77$ ,  $p<.001$ ). The 6th and 13th items were double-loaded in the pattern matrix in the EFA, which utilized the primary axis dimensioning and oblique rotation method; therefore, the analyses were rerun after omitting these items from the scale.

After omitting the double-loaded items 6 and 13, the subsequent analysis revealed that all loaded items had at least one factor in the pattern matrix, all the remaining items in the pattern matrix had a factor load of at least 0.38 after rotation, and there was no double-loaded item at all. According to the analysis results, the MoVEE-TR had a five-factor structure with an eigenvalue above 1, which accounted for approximately 65% of the total variance. The scree plot acquired from the same analysis also verified the five-factor structure. Table 4 displays the findings on factor structures and item-total correlations in the final version of the MoVEE-TR (KMO=0.85; Barlett  $\chi^2(136)=3320.92$ ,  $p<.001$ ).

As described in Table 2, Romantic Love (3 items), Anger (3 items), Sadness (3 items), Happiness (4 items), and Love (4 items) factors—as listed from the first to the fifth—explained approximately 29.47%, 12.27%, 10.15%, 7.36%, and 6.46% of the variance, respectively. Table 4 displays the mean and standard deviation values and Cronbach’s alpha internal consistency coefficients for the final MoVEE-TR, which consisted of five factors and 17 items. A Split-Half Reliability test was also conducted. According to the results, the correlation between forms was 0.72 and the Guttman Split-Half Coefficient value is 0.84.

In brief, exploratory factor analysis evidenced that the MoVEE-TR had a five-factor structure with 17 items, corresponding to approximately 66% of the total variance. This data also indicated that the MoVEE-TR provided the potential for usage as a valid and reliable measurement tool in assessing the comfort in verbal expression of emotions. CFA was also used to test the goodness-of-fit values for the scale’s final version with five factors.

The confirmatory factor analysis results revealed that, after making the recommended corrections (2 corrections), the five-factor model obtained in the exploratory factor analysis explicitly had an adaptive value for MoVEE-TR at a satisfactory level ( $\chi^2/df=2.98$ , RMSEA=0.059, GFI=0.94, CFI=0.84, SRMR=0.050).

Table 3 shows the correlations among the MoVEE-TR factors. Comfort levels in expressing happiness, love, sadness, and romantic love to another individual were all moderately correlated, whereas the comfort level of expressing anger was weakly associated with

**Table 4** Descriptive statistics and reliability coefficients of MoVEE-TR and its factors

	Mean	Standard deviation	Internal-consistency
MoVEE-TR -TOT	53.39	8.35	.86
MoVEE-TR - Romantic love	10.06	2.04	.73
MoVEE-TR - Anger	8.08	2.20	.77
MoVEE-TR - Sadness	8.47	2.15	.68
MoVEE-TR - Love	12.11	2.81	.82
MoVEE-TR - Happiness	13.25	2.14	.78



other factors. Table 3 provides the results of correlation analyses that determined the convergent and discriminant validity levels of the relationships between the subscales of the MoVEE-TR and the scores of emotional expression and emotional reactivity.

While the MoVEE-TR subscales were weakly related to the Emotional Reaction Scale for discriminant validity and displayed no correlation, the analyses for convergent validity revealed that the scores in the MoVEE-TR subscales, except for the sadness factor of the Emotional Expression Scale, were statistically significant ( $p < .001$ ) and positively correlated with each other.

### Discriminatory variables analyzes

In this part, discriminatory variables analyzes conducted for gender, education level, working status, psychiatric illness and, chronic illness status. An unpaired T-Test was run to evaluate intergroup variations in comfort scores in verbal expression of emotions based on participant gender. According to the findings, women were more comfortable and had higher scores when they verbally expressed their feelings of happiness ( $t = 3.72$ ,  $p < .01$ ), love ( $t = 4.18$ ,  $p < .01$ ), and romantic love ( $t = 2.48$ ,  $p < .01$ ). The ANOVA Dunnett t-test was run for education level (primary school graduate, high school graduate, university student, associate degree graduate, bachelor's degree, master's/doctoral graduate) to interpret intergroup variations in comfort scores in verbal expression of emotions, then Master's/PhD graduates express their feelings of love more easily than primary school graduate ( $F = 2.02$ ) high school graduates ( $F = 1.50$ ) and university students ( $F = 0.71$ ), and express their feelings of sadness more easily than primary school graduate ( $F = 2.03$ ) high school graduates ( $F = 1.51$ ) and university students ( $F = 0.76$ ), college graduates ( $F = 1.29$ ), ( $p < .05$ ). An unpaired T-Test was run to evaluate intergroup variations in comfort scores in verbal expression of emotions, expressing emotions based on separately working status, psychiatric and chronic diseases. Following to the findings, working people expressed their feelings of happiness ( $t = 2.45$ ,  $p < .05$ ), anger ( $t = 3.04$ ,  $p < .001$ ) and sadness ( $t = 4.19$ ,  $p < .001$ ) more easily than those who do not work. People have psychiatric diagnose were more uncomfortable and had low scores when they verbally expressed their feelings of romantic love ( $t = 2.43$ ,  $p < .01$ ). Therefore, people who don't have chronic illness were more comfortable and had high scores when they verbally expressed their feelings of happiness ( $t = -2.13$ ,  $p < .05$ ) and in general express their emotions more than people with chronic illness ( $t = -2.74$ ,  $p < .001$ ).

## Discussion

The primary objectives of this study were to analyze the psychometric properties of the Measure of Verbally Expressed Emotion, which is a self-report scale designed by Jacobson et al. (2015) to assess the comfort level of individuals while expressing their distinct emotions, and further adapt it to the Turkish language. Expression of emotions is a critical indicator for evaluating mental and physical health in various aspects, and thus, a measurement tool is necessary to extend our knowledge on the subject (Jacobson et al., 2015). The original MoVEE consisted of 19 items and four factors: love, happiness, anger, and sadness. The adapted Turkish version also included validity and reliability analyses with exploratory (EFA) and confirmatory (CFA) factor analyses. According to EFA results, the scale comprised five factors and 17 items. Two items — I find it difficult to show when I am happy, and I find it easy to convey love — were excluded from the study since they were double-loaded, and the love factor in the original scale was divided into two, naming the newly formed factor as “Romantic Love.” Considering the EFA results, the new factor had the best explanatory and internal consistency. The study verified the 5-factor structure to an acceptable degree by evaluating the generated structure with confirmatory factor analysis. There was strong internal consistency and reliability for each of the factors. There were moderate correlations between subscales, such as love, romantic love, happiness, and sadness; however, comfort in expressing anger was only weakly associated with the other three subscales. This finding was consistent with the original scale (Jacobson et al., 2015).

The item “I find it easy to convey love.” may have had a double load since it had no precise matching phrase in the Turkish language linguistically. The newly generated factor included items such as “I would not want to tell someone that I love them.” “When someone I love tells me they love me I find it difficult to tell them I love them too.” and “I do not want someone I love to know that I love them.” The common theme that draws attention to these items is the emphasis on the ‘beloved other’ and a clear expression of ‘love for the other.’ To begin with, the English word ‘love’ (as kindly preferred in this study) is translated into Turkish as five separate emotional words: amity, liking, infatuation, love, and affection” (Cambridge Dictionary, 2023). A new factor may have arisen in the current study since it was translated only as “love.” Unlike the other items on the scale, the novel factor was supposed to have two subjects, and it primarily evoked a sense of romantic love. Additionally, it appears that the limited comfort of an entity in expressing its feelings for the other or the entity's avoidance of its emotion may also have a place in the cultural context.

Attachment tendencies reportedly differ in cross-cultural studies. Compared to Westerners, Asians display more anxiety and avoidance when it comes to attachment issues. The context of emotional expression and behavioral norms in Asian cultures has been discussed in this finding (Wei et al., 2004; Wang & Mallinckrodt, 2006; Cheng & Kwan, 2008). As Tsai and Levenson (1997) asserted, Americans openly disclose their emotions with others, whereas the ideal interpersonal style for collectivists is to have a consistent exterior without indicating inner feelings. This attitude may partially explain the intercultural differences in attachment tendencies. Given the prevalence of the music style called “arabesque” in Turkish culture, in addition to the literary works, the same inclination to refrain from verbally expressing emotion in romantic relationships, even in the absence of a relationship, appears to be a typical attitude. The current study did not address this aspect; however, future studies may focus on attachment styles and the expression of emotions in romantic relationships and reveal attachment styles and comfort in verbal expression of emotions by cross-cultural comparison.

Finally, the current study concluded that women expressed positive feelings (happiness, love, romantic love) more readily than men, considering the comfort in verbally expressing the emotions between genders. As Akan and Barışkın (2017) found in their study conducted with a Turkish sample, women are more adept at expressing their emotions than males are. These findings were comparable to the literature (Gross & John, 1995; Simpson and Stroh, 2004; Chaplin, 2015), although it was consistent that men scored higher for suppressing their feelings. Furthermore, while the current literature primarily refers to the subject of expression, it is anticipated that focusing on the comfort of verbal expression in this study will significantly advance the field in the literature.

When comparing the comfort levels in expressing emotions based on health status, our findings exhibit compatibility with existing literature. Simultaneously, we have uncovered intriguing results. The discovery that individuals with chronic illnesses express happiness less comfortably aligns with current research in the fields of health and happiness (Kar, 2023; Wang et al. 2022; Steptoe, 2019; Veenhoven, 2008). Furthermore, our observation that the healthy cohort more comfortably expresses their emotions corresponds with numerous studies (Berry & Pennebaker, 1993; Wotschack & Klann-Delius, 2013; Montebanocci et al., 2011) in the realms of psychosomatic diseases and alexithymia. It is worth noting that the finding indicating that individuals without a psychiatric diagnosis express romantic love more comfortable than those diagnosed is a novel contribution to the literature. In our study, we also noted a negative correlation between romantic love and emotional

reactivity ( $r = -.16, p < .01$ ), the relationship between emotional reactivity and psychopathology is known in the literature (Gross & Jazaieri, 2014; Bylsma et al., 2008; Nock et al., 2008), and our finding indirectly supports this. However, we think that the expression of romantic love should be differentiated for psychiatric patients and should be further investigated. While this research did not explicitly assess the matter, the negative relationship between psychiatric conditions and secure attachment can be considered. We acknowledge that these findings may be influenced by cultural factors, and we recommend that future research endeavors explore the comfort in expressing romantic love within and across diverse cultural contexts. Such investigations will further enrich the understanding of this complex interplay between health status and emotional expression.

### Implications for practice

The comprehensive analysis of all findings indicated that the Turkish version of the MOVEE, comprising a 17-item and a 5-factor structure, met the validity and reliability requirements. It is critical that using this scale is necessary to demonstrate how the newly identified factor structure will perform in future studies. While developing the original scale, the researchers focused solely on a sample of university students; however, they suggested extending the age range for sample scales. Considering this recommendation, the current study sample consisted of participants ranging from 18 to 65 ages, concluding that sampling this age range was appropriate. This scale, which enables evaluation of the experience before expressing the emotion, is believed to contribute to empirical studies and provide practical implementations in clinical, social, and therapeutic studies.

Understanding and expressing emotions are necessary for having romantic relationships (Feldman Barrett et al., 2019). In the study conducted by Davila et al., (2017) with 87 couples, it was observed that verbal expression of positive emotions in women was associated with romantic competence and relationship satisfaction of both themselves and their partners. Yildirim-Celik et al. (2022) concluded that expression is linked to several characteristics of the marriage, such as marital satisfaction. Emotionally strong couples can identify their emotions in the face of annoyance, comprehend implicit notions, and communicate their sentiments to their partner more successfully (Navabi Far et al., 2020). These couples exhibit more suitable marital adjustment with respect to the marital living space and are more adept at handling difficult situations (Konishi et al., 2018). Mohsenpour et al., (2023) showed that in their study with 257 couples, there is a negative relationship between

emotional expression and egocentricity, social incompetence, insecure attachment, and alienation.

Reduced capacity for emotional expression is one possible effect of experiential avoidance (Hayes et al., 2004), and this has been linked to negative outcomes for mental health (Gross & John, 1997). The verbal conveyance of emotions is one context in which reduced emotional expression may be most noticeable, since those with high experiential avoidance may not be as able or ready to utilize language that is emotionally charged.

According to MacLean (1949), physiological stress brought on by deficiencies in verbal emotion expression is the cause of psychosomatic disorders. Further research characterized psychosomatic patients as having utilitarian, operational thinking (Marty & de M'Uzan, 1963) and lacking introspection and fantasies. Overall, these clinical reports revealed a pattern of symptoms that included poor creative capacity, trouble expressing emotions verbally and symbolically, and a propensity to act out of stress rather than mentally addressing it. Nemiah and Sifneos (1970) organized these data and established a clear connection between a person's propensity for different physical ailments and their inability to perceive, comprehend, describe, and express emotions. Taylor and Doody (1982) studied psychopathology and verbal expression in 20 patients with psychoneurotic illness and 20 patients with psychosomatic illness (10 patients with ulcerative colitis and 10 patients with Crohn's disease). When comparing the patients with Crohn's disease and ulcerative colitis independently from the psychoneurotic patients, they both exhibited a comparable decrease in verbal-emotional expressiveness (alexithymia). It was determined that alexithymic traits are distinct from other types of psychopathology and could have a greater role in the etiology of psychosomatic disorders.

From Freud to the present day, the expression of feelings is of great significance in psychoanalytic theory, interpersonal relations, cognitive behavioral models, and various therapy Ecole, including dialectical behaviorists (Jacobson et al., 2015). Since experiencing and manifesting feelings are two fundamental components of emotion, a valid and reliable assessment of emotional experience and manifestation for those who get therapy (client) is critical to the success of many psychotherapy approaches. For instance, the effectiveness of exposure-based therapies depends on the therapist's capacity to measure the client's level of distress when repeatedly exposed to a feared stimulus. Increasing a client's ability to recognize and maintain contact with emotions is one of the primary objectives of mindfulness-based interventions such as Acceptance and Commitment Therapy and Mindfulness-Based Cognitive Therapy (Sloan & Kring, 2007).

All in all, this scale, which is adapted to measure the verbal expression of emotions, can be used in studies on romantic relationships and marriage, to evaluate a dimension of behavior (experiential avoidance), in studies on personality as a dimension of alexithymia, and in studies on psychosomatic patients. It can also be used as a preliminary evaluation tool in individual and couple therapy processes.

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**Data availability** The generated and/or analyzed dataset of this research is available from the corresponding author upon reasonable request.

## Declarations

**Ethics approval** All procedures in studies with human participants were carried out by ethical standards, with the approval of the Istanbul University Ethics Committee. Informed consent was obtained from all participants.

**Conflict of interest** The corresponding author declares that there is no conflict of interest on behalf of all authors.

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## References

- Akan, Ş. T., & Barışkın, E. (2017). Kültür ve cinsiyet bağlamında Berkeley duygu ifadesi ölçeğinin geçerlilik ve güvenilirlik ölçütleri. *Türk Psikiyatri Dergisi*, 28, 43–50. <https://doi.org/10.5080/u13378>.
- Akın, A. (2011). The validity and reliability of the Turkish version of the Berkeley Expressivity Scale. *Procedia-Social and Behavioral Sciences*, 30, 27–33.
- Arafat, S. Y., Chowdhury, H. R., Qusar, M. M. A. S., & Hafez, M. A. (2016). Cross-cultural adaptation and psychometric validation of research instruments: A methodological review. *Journal of Behavioral Health*, 5(3), 129–136.
- Araz, A., & Erkuş, A. (2014). Duygu dışavurum tarzlarının kavramsallaştırılması ve ölçümü: Bir envanter geliştirme çalışması. *Türk Psikoloji Dergisi*, 29(74), 50–61.
- Barr, L. K., Kahn, J. H., & Schneider, W. J. (2008). Individual differences in emotion expression: Hierarchical structure and relations with psychological distress. *Journal of Social and*



- Clinical Psychology*, 27(10), 1045–1077. <https://doi.org/10.1521/jscp.2008.27.10.1045>.
- Berry, D. S., & Pennebaker, J. W. (1993). Nonverbal and verbal emotional expression and health. *Psychotherapy and Psychosomatics*, 59(1), 11–19.
- Bylsma, L. M., Morris, B. H., & Rottenberg, J. (2008). A meta-analysis of emotional reactivity in major depressive disorder. *Clinical Psychology Review*, 28(4), 676–691.
- Carson, J. W., Keefe, F. J., Lowry, K. P., Porter, L. S., Goli, V., & Fras, A. M. (2007). Conflict about expressing emotions and chronic low back pain: Associations with pain and anger. *The Journal of Pain*, 8(5), 405–411.
- Chaplin, T. M. (2015). Gender and emotion expression: A developmental contextual perspective. *Emotion Review*, 7(1), 14–21.
- Cheng, S. T., & Kwan, K. W. (2008). Attachment dimensions and contingencies of self-worth: The moderating role of culture. *Personality and Individual Differences*, 45(6), 509–514.
- Davila, J., Wodarczyk, H., & Bhatia, V. (2017). Positive emotional expression among couples: The role of romantic competence. *Couple and Family Psychology: Research and Practice*, 6(2), 94–105. <https://doi.org/10.1037/cfp0000077>.
- Feldman Barrett, L., Adolphs, R., Marsella, S., Martinez, A. M., & Pollak, S. D. (2019). Emotional expressions reconsidered: Challenges to inferring emotion from human facial movements. *Psychological Science in the Public Interest*, 20(1), 1–68. <https://doi.org/10.1177/1529100619832930>.
- Gross, J. J., & Jazaieri, H. (2014). Emotion, emotion regulation, and psychopathology: An affective science perspective. *Clinical Psychological Science*, 2(4), 387–401.
- Gross, J. J., & John, O. P. (1995). Facets of emotional expressivity: Three self-report factors and their correlates. *Personality and Individual Differences*, 19(4), 555–568.
- Gross, J. J., & John, O. P. (1997). Revealing feelings: Facets of emotional expressivity in self-reports, peer ratings, and behavior. *Journal of Personality and Social Psychology*, 72, 435–448.
- Hayes, S. C., Strosahl, K., Wilson, K. G., Bissett, R. T., Pistorello, J., Toarmino, D., et al. (2004). Measuring experiential avoidance: A preliminary test of a working model. *Psychological Record*, 54, 553–578.
- Ivanova, I. V., & Watson, J. C. (2010). The role of emotional expression and ambivalence over expression in romantic relationships. *Baltic Journal of Psychology*, 11(1/2), 62–72.
- Jacobson, C., Hill, R. M., Pettit, J. W., & Miranda, R. (2015). The measure of verbally expressed emotion: Development and factor structure of a scale designed to assess comfort expressing feelings to others. *Journal of Psychopathology and Behavioral Assessment*, 37, 358–369.
- Kar, N. (2023). Happiness and health: An intricate relationship. In S. Chetri, T. Dutta, M. K. Mandal, & P. Patnaik (Eds.), *Understanding happiness*. Springer. [https://doi.org/10.1007/978-981-99-3493-5\\_9](https://doi.org/10.1007/978-981-99-3493-5_9).
- Keltner, D., & Kring, A. M. (1998). Emotion, social function, and psychopathology. *Review of General Psychology*, 2(3), 320–342.
- Kennedy-Moore, E., & Watson, J. C. (2001). How and when does emotional expression help? *Review of General Psychology*, 5(3), 187–212.
- King, L. A., & Emmons, R. A. (1990). Conflict over emotional expression: Psychological and physical correlates. *Journal of Personality and Social Psychology*, 58(5), 864.
- Konishi, H., Froyen, L. G., Skibbe, L. E., & Bowles, R. P. (2018). Family context and children's early literacy skills: The role of marriage quality and emotional expressiveness of mothers and fathers. *Early Childhood Research Quarterly*, 42, 183–192. <https://doi.org/10.1016/j.ecresq.2017.10.008>.
- Kring, A. M., & Sloan, D. M. (Eds.). (2009). *Emotion regulation and psychopathology: A transdiagnostic approach to etiology and treatment*. Guilford Press.
- Kring, A. M., Smith, D. A., & Neale, J. M. (1994). Individual differences in dispositional expressiveness: Development and validation of the emotional expressivity scale. *Journal of Personality and Social Psychology*, 66(5), 934.
- Kunst, L. E., de Groot, J., & van der Does, A. W. (2019). Ambivalence over expression of anger and sadness mediates gender differences in depressive symptoms. *Cognitive Therapy and Research*, 43, 365–373.
- Kuzucu, Y. (2011). Duyguları İfade Etme Ölçeği'nin uyarlanması: geçerlik ve güvenilirlik çalışmaları. *Kastamonu Eğitim Dergisi*, 19(3), 779–792.
- Love love | İngilizce-Türkçe Sözlük - Cambridge Dictionary. (n.d.). Retrieved March 1, 2023, from <https://dictionary.cambridge.org/tr/s%C3%B6zl%C3%BCk/ingilizce-t%C3%BCrk%C3%A7e/love>.
- MacLean, P. D. (1949). Psychosomatic disease and the « visceral brain » – recent developments bearing on the papez theory of emotion. *Psychosomatic Medicine*, 11(6), 338–353. <https://doi.org/10.1097/00006842-194911000-00003>.
- Marty, P., & de M'Uzan, M. (1963). La pensée opératoire. *Revue Française De Psychanalyse*, 27(suppl.), 345–356.
- Mohsenpour, S., Alaei khorayem, S., & Heidari Raziabad, N. (2023). The role of object relations in Predicting Emotional expression, distress tolerance and Marital Quality. *Journal of Family Relations Studies*, 3(9), 46–52. <https://doi.org/10.22098/jfrs.2023.11960.1090>.
- Mongrain, M., & Vettese, L. C. (2003). Conflict over emotional expression: Implications for interpersonal communication. *Personality and Social Psychology Bulletin*, 29(4), 545–555.
- Montebarocci, O., Surcinelli, P., Rossi, N., & Baldaro, B. (2011). Alexithymia, verbal ability and emotion recognition. *Psychiatric Quarterly*, 82, 245–252.
- Navabi far, F., Atashpour, H., & Golparvar, M. (2020). The Effect of a Premarital Educational Program based on 9-Type personalities types (Enneagram) on emotional expressiveness of couples preparing for marriage. *Iranian Journal of Psychiatry and Clinical Psychology*, 26(1), 2–15. <https://doi.org/10.32598/ijpcp.26.1.3128.1>.
- Nayla Awada, S., Bergeron, M., Steben, V. A., Hainault, P., & McDuff (May 2014). To say or not to say: Dyadic ambivalence over emotional expression and its associations with Pain, sexuality, and distress in couples coping with provoked Vestibulodynia. *The Journal of Sexual Medicine*, 11(5), 1271–1282. <https://doi.org/10.1111/jsm.12463>.
- Nemiah, J. C., & Sifneos, P. E. (1970). Psychosomatic illness: A problem in communication. *Psychotherapy and Psychosomatics*, 18(1–6), 154–160. <https://doi.org/10.1159/000286074>.
- Nock, M. K., Wedig, M. M., Holmberg, E. B., & Hooley, J. M. (2008). The emotion reactivity scale: Development, evaluation, and relation to self-injurious thoughts and behaviors. *Behavior Therapy*, 39(2), 107–116.
- Seçer, İ., Halmatov, S., & Gençdoğan, B. (2013). Duygusal tepkisellik ölçeğinin Türkçeye uyarlanması: güvenilirlik ve geçerlilik çalışması. *Sakarya University Journal of Education*, 3(1), 77–89.
- Simpson, P. A., & Strohm, L. K. (2004). Gender differences: Emotional expression and feelings of personal inauthenticity. *Journal of Applied Psychology*, 89(4), 715–721. <https://doi.org/10.1037/0021-9010.89.4.715>.
- Simsek, O. F. (2007). Yapısal eşitlik modellemesine giriş: Temel ilkeler ve LISREL uygulamaları. *Ankara: Ekinoks*.
- Sloan, D. M., & Kring, A. M. (2007). Measuring changes in emotion during psychotherapy: Conceptual and methodological issues. *Clinical Psychology: Science and Practice*, 14(4), 307.

- Step toe, A. (2019). Happiness and health. *Annual Review of Public Health, 40*, 339–359.
- Taylor, G., & Doody, K. (1982). Psychopathology and verbal expression in psychosomatic and psychoneurotic patients. *Psychotherapy and Psychosomatics, 38*(1–4), 121–127.
- Tsai, J. L., & Levenson, R. W. (1997). Cultural influences on emotional responding: Chinese American and European American dating couples during interpersonal conflict. *Journal of Cross-Cultural Psychology, 28*(5), 600–625.
- Veenhoven, R. (2008). Healthy happiness: Effects of happiness on physical health and the consequences for preventive health care. *Journal of Happiness Studies, 9*, 449–469.
- Vore, D. (2020). *The relationship between emotional expression and psychological distress amongst British, Indian, Polish, and South African university students* (Doctoral dissertation, London Metropolitan University).
- Wang, C. C. D., & Mallinckrodt, B. S. (2006). Differences between Taiwanese and US cultural beliefs about ideal adult attachment. *Journal of Counseling Psychology, 53*(2), 192.
- Wang, W., Sun, Y., Chen, Y., Bu, Y., & Li, G. (2022). Health effects of Happiness in China. *International Journal of Environmental Research and Public Health, 19*(11), 6686. <https://doi.org/10.3390/ijerph19116686>. MDPI AG.
- Wei, M., Russell, D. W., Mallinckrodt, B., & Zakalik, R. A. (2004). Cultural Equivalence of adult attachment across four ethnic groups: Factor structure, structured means, and associations with negative Mood. *Journal of Counseling Psychology, 51*(4), 408.
- Wotschack, C., & Klann-Delius, G. (2013). Alexithymia and the conceptualization of emotions: A study of language use and semantic knowledge. *Journal of Research in Personality, 47*(5), 514–523.
- Yildirim-Celik, H., Eroglu, S., Oguz, K., Karakoc-Tugrul, G., Erdogan, Y., Isman-Haznedaroglu, D., & Gonul, A. S. (2022). Emotional context effect on recognition of varying facial emotion expression intensities in depression. *Journal of Affective Disorders, 308*, 141–146. <https://doi.org/10.1016/j.jad.2022.04.070>.
- Zhou, X., Guo, J., Wu, H., Chen, D., Wang, C., & You, J. (2022). The relationship between ambivalence over emotional expression and nonsuicidal self-injury among Chinese adolescents: A longitudinal moderated mediation model. *Archives of Suicide Research, 1–17*.

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