# A Turkish adaptation of the Fears and Resistances to Mindfulness Scale: Factor structure and psychometric properties

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## Abstract

This study introduces the adaptation process of the Fears and Resistances to Mindfulness Scale (FRMS) in the Turkish context. Additionally, it explores the association between this psychological measure and psychological distress, life satisfaction, and mindful awareness. The structure validity of the scale was confirmed in a sample of 562 Turkish participants. Additionally, item response theory (IRT) analysis showed that the item difficulty and discrimination were appropriate. The FRMS scores exhibited a strong and positive correlation with depression, anxiety, and stress while displaying a negative correlation with life satisfaction and mindful awareness. These findings provide evidence for the concurrent validity of the scale. The study demonstrated incremental validity by using mediational models to show significant and distinct indirect effects of FRMS on life satisfaction. These effects were mediated by psychological distress. The current study demonstrates that the FRMS is a valid and reliable instrument for assessing individuals from the Turkish population.

**Keywords:** Mindfulness; scale adaptation; wellbeing; distress

## INTRODUCTION

Mindfulness, one of the popular concepts, continues to be used in many fields, such as health, education, and workplaces, with increasing interest (Zhang et al., 2021). Emerging from Buddhist roots, mindfulness can be described as an individual's non-judgmental and receptive concentration on present-moment occurrences (Kabat-Zinn, 1994). With mindfulness, individuals are aware of their thoughts and emotions, as well as their senses and perceptual stimuli (Brown & Ryan, 2003). Instead of getting lost in the automatic processes of the mind (Kabat-Zinn, 2015), mindfulness encourages individuals to consciously pay attention to and recognize their thoughts (Kabat-Zinn, 2005).

On the other hand, paying attention to the mind and focusing attention inward can be challenging for some individuals. This is because paying attention to thoughts and feelings that are challenging for the individual to remember and activating threatening memories may become unbearable. Therefore, the individual may want to avoid these thoughts, feelings, and memories (Germer et al., 2013; Gilbert & Simos, 2022). Thus, the individual may refuse to accept or deal with the internal processes that are occurring at that moment (Brown & Ryan, 2003).

Although mindfulness has benefits for individuals (Germer et al., 2013; Khoury et al., 2013), it has been the subject of research in the literature due to the potential problems discussed (Baer et al., 2021; Britton et al., 2021; Lindahl et al., 2017; Lomas et al., 2015; Taylor et al., 2022). Taylor et al. (2022) found that meditation and mind-body practices have both well-being-enhancing benefits and health-preventing side effects. Lomas et al. (2015) stated that meditation is a difficult skill to learn and practice, individuals may encounter disturbing feelings and thoughts that are difficult to manage, and may worsen some mental health problems. In other studies, examining the effects of meditation on individuals, it has been found that some individuals who experience meditation may have negative experiences (Britton et al., 2021; Lindahl et al., 2017), such as reliving their traumas, anxiety, and panic (Britton et al., 2021). Baer et al. (2021) investigated the potential effects of an 8-week Mindfulness-Based Cognitive Therapy intervention on

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participants. Some participants reported unpleasant experiences and worsening of symptoms. However, some participants also reported that the difficulties they experienced due to the intervention contributed to important learning or that they found them useful.

Although mindfulness contributes to individuals, if individuals are afraid of mindfulness, facing what is happening, or if they think that it is a waste of time, they will not be able to take part in mindfulness practices, and therefore, these individuals will not be reached with these practices (Gilbert et al., 2023). In order to identify individuals' fears of mindfulness, Gilbert et al. (2023) developed the fears and resistances of mindfulness scale. Fears are associated with concerns about engaging in a particular activity and what might be experienced as a result of that activity. Barriers are related to being open to a particular activity but lacking information about what to do in the context of that activity or feeling busy. Resistances are associated with refusing to participate in an activity due to cost (time, resources, meaningfulness, etc.) or seeing it as contrary to personal values (Gilbert et al., 2023).

Although the Turkish literature includes the Mindfulness Scale, which measures the general tendencies of individuals to be aware of and attentive to their immediate experiences (Özyeşil et al., 2011), there is no scale that measures individuals' fears and resistances related to mindfulness. By understanding the fears and resistances related to mindfulness, it will be possible to determine which individuals are more likely to experience negative effects related to mindfulness practices and why these individuals have difficulties. In addition, having a scale tool that measures fears and resistances of mindfulness may also contribute to practitioners and researchers working in the field of mindfulness.

This study aims to test the reliability and validity of the Fears and Resistances to Mindfulness Scale (FRMS) developed by Gilbert et al. (2023) to investigate individuals' fears and resistances related to attention and mindfulness in the Turkish population. Furthermore, the relationships between fears and resistances of mindfulness and life satisfaction, depression, anxiety and stress will be examined. Finally, the mediating role of fears and resistances of mindfulness between life satisfaction and psychological distress will be investigated.

# METHOD

## Participants and procedure

The data was collected online using convenience sampling. Individuals were contacted via social media and were asked to voluntarily participate. The participants provided informed consent. The questionnaires have been migrated to an online platform using Google Forms. The survey was anonymously prepared and participants were provided with a concise overview of the study beforehand. The form guaranteed the absence of any missing data in the study. The study was carried out within the framework of the Helsinki declaration. In addition, the study protocol has been approved by Yildiz

Technical University Scientific Research and Ethical Review Board (ID: 20231202473).

The study included 562 participants (444 females and 118 male) aged between 18 and 33 years, with a mean age of 20.26 and a standard deviation of 2.18. A total of 231 participants have a high school education, 307 have a university degree, and 24 have postgraduate education. When examined in terms of socio-economic level perception, 92 participants reported a low level, 433 participants reported a moderate level, and 37 participants reported a high level. A total of 63 participants are not employed, 26 participants are public sector employees, 68 participants are private sector employees, and the remaining majority consists of university students.

## Measures

### The Fears and Resistances to Mindfulness Scale

The Fears and Resistances to Mindfulness Scale (FRMS) was developed by Gilbert et al. (2023). The scale consists of 26 items, but seven items (e.g., I am happy to observe my mind) are reverse-scored filler items, and after removing these items, 19 items remain in the final scale. The scale consists of two subscales: fear of mindfulness (e.g., I'm often trying to escape from my thoughts.) and resistance to mindfulness (e.g., Trying to be mindful is a waste of time when I could be doing something else.). The scale is a 5-point Likert scale (1 = Not at all like me, 5 = Extremely like me), and no single score can be obtained. The Cronbach's alpha values for both dimensions are 0.91. The reliability coefficients for the dimensions in this study are presented in Table 1.

### The Mindful Attention Awareness Scale

The scale developed by Brown and Ryan (2003) was adapted into Turkish by Özyeşil et al. (2011). The scale consists of 15 items (e.g., It seems I am "running on automatic" without much awareness of what I'm doing.) and a 6-point Likert scale (1 = Almost always, 6 = Almost never). The minimum score is 15, and the maximum score is 90. The Cronbach's alpha internal consistency coefficient of the scale was .80 and the test-retest correlation was .86. The Cronbach's alpha internal consistency coefficient calculated for this study was .87.

### The Satisfaction with Life Scale

The Satisfaction with Life Scale developed by Diener et al. (1985) was adapted into Turkish by Dağlı and Baysal (2016). The scale includes a total of 5 items (e.g., I am satisfied with my life.). It is a 5-point Likert scale (1 = Strongly disagree, 5 = Strongly agree) with a minimum score of 5 and a maximum score of 25. The Cronbach's alpha coefficient of the scale is 0.88. The Cronbach's alpha value calculated for this study is .85.

### The Depression Stress and Anxiety Scale

The first study on the scale was conducted by Lovibond and Lovibond (1995). The adaptation of the short form of the scale into Turkish was conducted by Yılmaz et al. (2017). The scale consists of three dimensions: depression, anxiety, and stress.

There are 7 items for each sub-dimension, and the scale consists of 21 items in total. Responses to each item ranged from 0 (did not apply to me at all) to 3 (applied to me very much). The minimum score for each dimension is 0 and the maximum score is 21. The Cronbach's alpha values of the scale are .82 for depression, .81 for anxiety, and .76 for stress. The Cronbach's alpha value calculated in this study is .90, .87, .86, respectively.

## Data analysis

Initially, an examination of the descriptive statistics for the Turkish version of the FRMS is conducted. Next, the scale's construct validity was assessed using confirmatory factor analysis (CFA). The Graded Response Model (GRM) was employed to assess Item Response Theory. The concurrent validity of the Turkish version of FRMS was assessed by examining its associations with mindful awareness, life satisfaction, depression, anxiety, and stress. Two distinct bootstrapping mediation models were examined to assess incremental validity. The first model involved the relationship between fears to mindfulness, psychological distress, and life satisfaction. The second model examined the relationship between resistances to mindfulness, psychological distress, and academic well-being. Both models were tested using a bootstrap sample of 10,000. Age and gender were utilized as covariates in the models. The convergent validity of the FRMS was evaluated by computing the composite reliability (CR). The reliability of the Turkish version of FRMS was assessed by examining Cronbach's alpha, McDonald's omega, and Guttmann's lambda. The analyses were conducted using SPSS 22, AMOS 24, Stata 14.2, and JAPS 0.11.1.

## RESULTS

The table provides the descriptive statistics, including the mean, standard deviation, variance, skewness, and kurtosis, for the Turkish version of Fears and Resistances to Mindfulness Scale (FRMS). The analysis revealed that the averages of the dimension are moderately consistent. All skewness and kurtosis values meet the criteria for normality.

The goodness-of-fit indices suggest that the two-dimensional model fits well with our data. The Goodness of Fit Index (GFI) is .901, the Standardized Root Mean Square Residual (SRMR) is .061, and the Root Mean Square Error of Approximation (RMSEA) is .067. The Chi-Square Model-Implied Discrepancy (CMID) is 526.60 with 151 degrees of freedom, resulting in a CMID/df ratio of 3.48. The factor loadings exhibited values greater than .36, and all factor loadings were statistically significant. Thus, the confirmatory factor analysis (CFA) results provided support for the construct validity of the Turkish version of FRMS. The factor loadings of confirmatory factor analyses are displayed in Figure 1.

**Table1: Descriptive statistics for the scale**

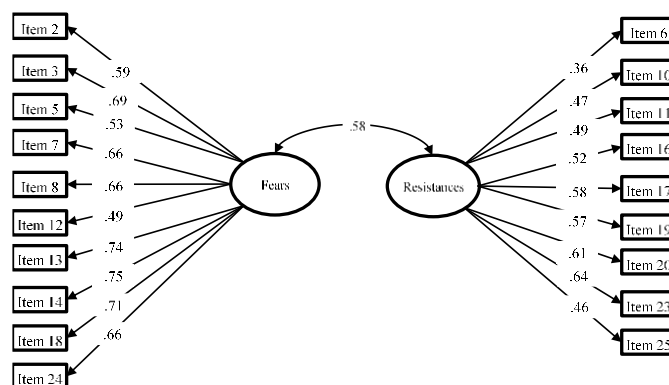| Construct | Fears | Resistance |
|---|---|---|
| Mean | 25.46 | 19.63 |
| SD | 9.17 | 6.70 |
| Skewness | .354 | .367 |
| Kurtosis | -.606 | -.646 |
| CR | .880 | .773 |
| Cronbach α | .878 | .769 |
| McDonald ω | .880 | .771 |
| Guttmann λ6 | .877 | .760 |



**Figure 1.** Standardized factor loadings of the scale

Following the completion of the CFA, an IRT analysis was conducted, as shown in Table 2. It has been observed that only two items exhibit low discriminative power, while the others are found to have moderate, high, and very high discriminative power. After examining the IRT results, we proceeded to evaluate the concurrent validity (see Table 3). The correlation analysis revealed significant positive associations between all dimensions of the scale (fears and resistances) and depression (0.554 and 0.311, respectively), anxiety (0.542 and 0.162, respectively), and stress (0.589 and 0.277, respectively). Conversely, the dimensions were found to have negative correlations with life satisfaction (-0.370 and -0.199, respectively) and mindful awareness (-0.504 and -0.246, respectively).

The incremental validity of the FRMS was also examined in a bootstrapping mediational model. Figure 2 (panel A) illustrates the impact of fears to mindfulness on life satisfaction through psychological distress. The model findings revealed a significant relationship between fears to mindfulness and life satisfaction, with psychological distress acting as a partial mediator ($b$ = -.087, SE = .02, 95% CI=-.116, -.059). Furthermore, Figure 2 (panel B) illustrates the impact of resistances to mindfulness on life satisfaction through psychological distress. The findings demonstrated a significant relationship between resistances to mindfulness and life satisfaction, which was fully mediated by psychological distress. The regression coefficient ($b$) was -.073, with a standard error (SE) of .02. The 95% confidence interval (CI) ranged from -.098 to -.051.

Lastly, the CR values ranged from .773 to .880, indicating strong evidence of convergent validity. Finally, the Cronbach's alpha, McDonald's omega, and Guttmann's lambda coefficients were evaluated for the Turkish version of FRMS. The reliability

## Table 2: IRT results for the Fears and Resistances to Mindfulness Scale

| Dimension | Item | α coefficient | SE | Confidence interval | z | p > |z| |
|---|---|---|---|---|---|---|
| Fears to mindfulness | Item 2 | 1.37 | .11 | 1.14-1.60 | 11.71 | .001 |
| | Item 3 | 2.01 | .15 | 1.70-2.31 | 12.91 | .001 |
| | Item 5 | 1.18 | .11 | 0.95-1.39 | 10.51 | .001 |
| | Item 7 | 1.89 | .15 | 1.59-2.19 | 12.47 | .001 |
| | Item 8 | 1.84 | .14 | 1.56-2.13 | 12.61 | .001 |
| | Item 12 | 1.13 | .11 | 0.91-1.35 | 10.22 | .001 |
| | Item 13 | 2.31 | .17 | 1.96-2.67 | 12.91 | .001 |
| | Item 14 | 2.34 | .18 | 1.98-2.71 | 12.75 | .001 |
| | Item 18 | 2.09 | .17 | 1.76-2.43 | 12.22 | .001 |
| | Item 24 | 1.82 | .15 | 1.52-2.12 | 12.02 | .001 |
| Resistances to mindfulness | Item 6 | .785 | .10 | 0.58-0.98 | 7.70 | .001 |
| | Item 10 | 1.14 | .12 | 0.90-1.38 | 9.38 | .001 |
| | Item 11 | 1.14 | .12 | 0.91-1.38 | 9.35 | .001 |
| | Item 16 | 1.29 | .13 | 1.03-1.55 | 9.87 | .001 |
| | Item 17 | 1.52 | .14 | 1.23-1.81 | 10.18 | .001 |
| | Item 19 | 1.61 | .15 | 1.30-1.91 | 10.29 | .001 |
| | Item 20 | 1.76 | .17 | 1.41-2.11 | 9.87 | .001 |
| | Item 23 | 1.95 | .19 | 1.56-2.33 | 9.92 | .001 |
| | Item 25 | .925 | .11 | 0.71-1.14 | 8.29 | .001 |

## Table 3: Correlations for the Fears and Resistances to Mindfulness Scale

| Variables | Depression | Anxiety | Stress | Life satisfaction | Mindfulness |
|---|---|---|---|---|---|
| Fears to mindfulness | .554** | .542** | .589** | -.370** | -.504** |
| Resistance to mindfulness | .311** | .162** | .277** | -.199** | -.246** |

Note. ** $p < .001$
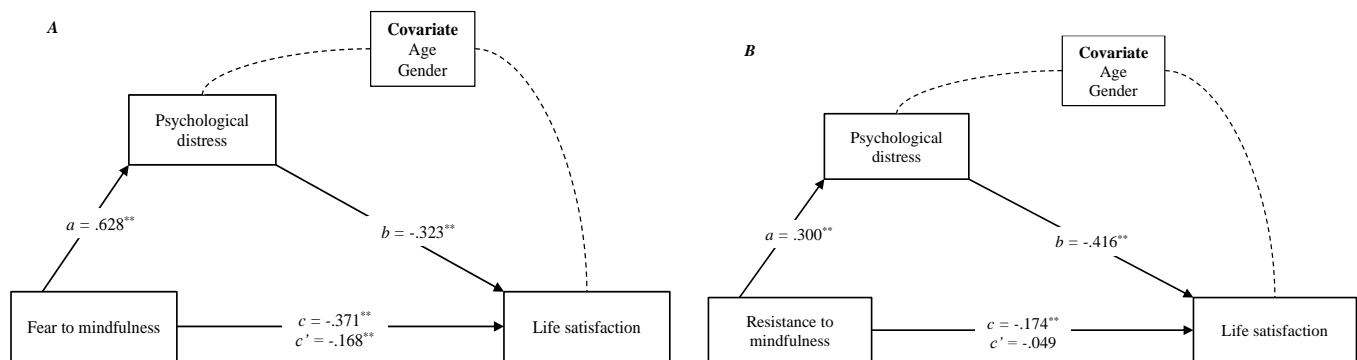


**Figure 2.** Mediated outcomes on life satisfaction showing indirect effects of fears (panel A) and resistances (panel B) to mindfulness through psychological distress

measures, specifically Cronbach's alphas (α = .878 - .769), McDonald's omega (ω = .880 - .771), and Guttmann's lambda (λ6 = .877 - .760), demonstrated a high level of acceptability.

## DISCUSSION

Mindfulness is defined as the acknowledgment and acceptance of one's negative emotions without attempting to modify or dismiss them (Neff, 2003). This practice involves focusing attention and awareness on the present moment, facilitating a deeper engagement with each unfolding experience (Baer, 2003). While many studies explore mindfulness, including some that examine negative attitudes towards mindfulness in Türkiye (Arslan et al. 2020; Özyeşil et al., 2011; Zümbül & Okur, 2021). This particular study aims to test the adaptation of

the Fears and Resistances to Mindfulness Scale (FRMS), an important scale related to mindfulness, to Turkish culture. Additionally, it seeks to examine the mediating role of psychological distress in the relationship between mindfulness and life satisfaction.

The outcomes of the confirmatory factor analysis (CFA) offered validation for the construct of the Turkish adaptation of the FRMS (GFI: .901, SRMR: .061, RMSEA: .067, CMID: 526.60 [df: 151, CMID/df ratio of 3.48]). The correlation examination indicated notable positive connections among every aspect within the scale (fears and resistances) and depression (0.554 and 0.311, respectively), anxiety (0.542 and 0.162, respectively), and stress (0.589 and 0.277). In contrast, these dimensions exhibited adverse correlations with life satisfaction (-0.370 and -0.199) and mindful awareness (-0.504

and -0.246). Within the scope of the criterion-related validity study of the FRMS, relationships between depression, anxiety, stress, life satisfaction, and mindfulness were examined. The results found support for the criterion-related validity defense. Additionally, the potential use of the FRMS in Turkish culture was established in this study.

Moreover, this study delves into the mediating function of psychological distress between the fear and resistance linked to mindfulness and life satisfaction. The study's outcomes affirm the mediating role of psychological distress. The initial mediation analysis suggests a partial mediation role of psychological distress. The predictive capacity of fear to mindfulness for life satisfaction significantly diminishes when psychological distress is taken into account, yet it continues to be a significant predictor. Subsequent analysis indicates a full mediation role of psychological distress. The predictive ability of resistance of mindfulness for life satisfaction significantly decreases and becomes statistically insignificant when psychological distress is considered. These findings suggest that psychological distress holds substantial sway over life satisfaction. Moreover, fear and resistance toward mindfulness exert their influence on life satisfaction indirectly, primarily through their impact on psychological distress.

## Limitations

The present research is subject to several limitations. Initially, the data in the research were gathered through the utilization of self-reported questionnaires, which may potentially introduce subjective inaccuracies. Furthermore, the study's cross-sectional design poses challenges in establishing causal relationships. Hence, it is imperative to conduct experimental and longitudinal studies in order to investigate the causal-effect relationship. Lastly, this study was carried out on a non-clinical sample originating from various cities in Türkiye.

## Conclusion

This study demonstrates the Turkish validation of the newly created Fears and Resistance to Mindfulness Scale (FRMS). Furthermore, it demonstrates that FRMS in this particular group of Turkish participants is positively correlated with depression, anxiety, and stress, and negatively correlated with life satisfaction and mindful awareness. Ultimately, it is disclosed that the connection between FRMS and life satisfaction is influenced by psychological distress.

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**Ethical Approval:** The study protocol has been approved by Yildiz Technical University Scientific Research and Ethical Review Board (ID: 20231202473). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its following updates.

**Consent to Participate**: Informed consent was obtained from all the individual participants that were included in the study.

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