



## RESEARCH ARTICLE

# Assessing Mindfulness Barriers: Turkish Validation of the Fears and Resistances to Mindfulness Scale (FRM) via a Bifactor Model Approach

Mustafa SUBAŞI<sup>a,b,c</sup>  Evgeny N. OSIN<sup>d</sup>  Hakan KARAMAN<sup>e</sup>  Emre GÜRKAN<sup>f</sup>   
Sefa BULUT<sup>c</sup> 

<sup>a</sup>National Research University Higher School of Economics, Moscow, Russia. <sup>b</sup>International Laboratory of Positive Psychology of Personality and Motivation, Moscow, Russia. <sup>c</sup>Ibn Haldun University, Istanbul, Türkiye. <sup>d</sup>University of Paris Nanterre, Paris, France. <sup>e</sup>Bartın University, Bartın, Türkiye. <sup>f</sup>Marmara University, Istanbul, Türkiye.

## ARTICLE HISTORY

**Received:** 07/06/2024

**Accepted:** 30/10/2024

## KEYWORDS

Mindfulness, fears of  
mindfulness, resistances to  
mindfulness, mindfulness  
avoidance

## ABSTRACT

The Fears and Resistances to Mindfulness Scale (FRM) is a self-report measure to help identify who may fear of, have blocks against, and show resistances to mindfulness. The goal of the present study was to evaluate psychometric properties of the Turkish version of the FRM. The study recruited a sample of 448 participants. Participants completed several instruments including the Fears and Resistances to Mindfulness Scale, Depression, Anxiety, and Stress Scales, Multidimensional Existential Meaning Scale, Satisfaction with Life Scale, and Mental Health Continuum-Short Form. Factor analyses confirmed the original two-factor structure of the FRM with good internal consistency and a bifactor model of the FRM. Measurement invariance analyses across gender showed consistent psychometric properties across gender. The subscales and the general factor had positive associations with depression, anxiety, and stress, whereas they predominantly were negatively associated with well-being indicators or irrelevant. This study confirms the original factor structure of the FRM in a non-Western context with a bifactor model. The Turkish version of the FRM is a valid and reliable instrument.

Mindfulness is broadly described as receptively being open to what happens in the present moment (Brown & Ryan, 2003). Being conceptualized in various ways, it includes being open to novelty, sensitive to contexts, oriented to the moment, aware of implicit motives, and alert to distinction (Langer, 2016). Mindfulness can be regarded as a non-judgmental awareness based on deliberately directing one's attention towards what is happening in the present moment such as thoughts, feelings, or bodily senses by being open to the experience without reaction, suppression, and judgment (Kabat-Zinn, 2015). It can be divided into two types: deliberate and effortless mindfulness. Deliberate mindfulness refers to purposefully cultivating mindfulness whereas effortless mindfulness stands for cultivating spontaneous mindfulness through intentional efforts.

**CORRESPONDING AUTHOR** Mustafa Subaşı, [mustafa.subasim@gmail.com](mailto:mustafa.subasim@gmail.com), ORCID: 0000-0003-4170-6280, National Research University Higher School of Economics, Moscow, Russia.

This is an article under the terms of the Creative Commons Attribution License. As the original work is properly cited, reproduction in any medium is permitted.

© 2025 The Authors. Turkish Journal of Counseling Psychology and Guidance is published by Turkish Psychological Counselling and Guidance Association

Mindfulness has repeatedly been found to be beneficial for health, well-being, motivation, symptom reduction in psychopathologies, and more in various fields such as education, psychotherapy, workplace, and health (Brown & Ryan, 2003; Davis & Hayes, 2011; Gong et al., 2023; Hülsgesher et al., 2013; Keng et al., 2011). It helps people regulate their activities, fulfill their needs, help them liberate themselves from automatic thinking, and reap greater levels of well-being (Ryan & Deci, 2017). To illustrate, a recent meta-analysis indicates that mindfulness consistently anticipates autonomous motivation, less controlled motivation, and less amotivation (Donald et al., 2020).

Mindfulness can be taught through practice and training to discern the differences between consciousness and awareness (Crane et al., 2012). However, it may be challenging to observe and non-judgmentally pay attention to their mind for certain individuals since mindfulness may be connected to individual experiences, disturbing images, intense emotions, and a sense of losing control. People may get stuck in difficult feelings and thoughts, and may not let them go (see a recent meta-analysis, Taylor et al., 2022). Understanding the dynamic nature of mind and distinguishing it from its contents may be very distressing or challenging for some people (Van Gordon et al., 2021). People may experience complex physical and mental states, and interpreting the emotions following these states can be very challenging (Gilbert, 2022). These experiences can be connected to feeling unsafe and under stress, triggering unwanted memories, and feeling overwhelmed as observing one's mind is compelling (Germer et al., 2013). Indeed, these can activate avoidance and may require further assistance by psychotherapy (Gilbert & Simos, 2022).

Despite the positive outcomes of mindfulness, recent research has pointed out potential adverse effects of mindfulness (Aizik-Reebs et al., 2021; Cebolla et al., 2017; Farias et al., 2020; Kuijpers et al., 2007; Lindahl et al., 2017; Shapiro, 1992; Shonin et al., 2013). Shapiro (1992) demonstrated that most participants (60%) who practiced meditation for a long period of time experienced adverse effects such as depression, anxiety, self-criticism, and panic during and after meditation sessions. Likewise, Britton et al. (2021) documented in their study using the meditation experiences interview that a range of 37% to 58% among participants reported adverse experiences, with a range of 6% to 14% having long-term effects. These experiences were trauma recollection, anxiety, panic, and distortions in time and space.

In a similar context, Aizik-Reebs et al. (2021) conducted a study on the practice of mindfulness meditation over the course of three weeks through experience sampling. They revealed that 87% of participants experienced no less than one temporary negative effect during meditation. Participants mostly reported anxious moods as well as rumination and feeling depressed, sad, and nervous. Similarly, Kaufmann et al. (2021) assigned participants to either a waiting list control group or a 90-minute mindfulness training plus 5-minute retreatment (Study 1  $N = 54$ , Study 2  $N = 155$ ). Participants with a high level of state orientation had higher significant scores in alienation in the mindfulness group compared to the control group. They concluded that mindfulness training may lead to alienation among people who are inclined to be state-oriented and impede their intrinsic interests with emotional contents.

Similarly, Baer et al. (2021) examined the potential negative effects of a 8-week course of Mindfulness-Based Cognitive Therapy among school teachers and university students without any diagnosis of mental disorders. Combining the results ( $N = 158$ ), they explored that a range of 3% and 7% had challenging experiences and symptom deterioration. They also discovered that certain participants initially encountered challenging experiences including restlessness against the practice and handling unpleasant feelings although the majority of participants addressed these obstacles. Moreover, people who have poorer self-control and self-regulation skills with greater inclination towards maladaptive reflection patterns such as quasi-reflection and rumination may not view meditation as enjoyable and beneficial. They are inclined to experience it demanding and/or uninteresting and thus, are more likely to discontinue their meditation practice (Osin & Turilina, 2022).

Although researchers maintain it is important to keep in mind that in what ways and how mindfulness is practiced can strongly affect mindfulness practice and research, current findings underscore the importance of measuring potential problems that people may face regarding mindfulness. Such instruments can help identify these problems and improve the quality of mindfulness experiences/training/research with potential solutions.

Available instruments such as the Mindful Attention Awareness Scale (Brown & Ryan, 2003) and the Five Facet Mindfulness Questionnaire (Baer et al., 2006) do not directly evaluate potential problems that people may have with mindfulness. Currently, researchers do not have an informed understanding when it comes to who can be prone to suffer from mindfulness or undergo its negative effects and reasons behind this phenomenon. To illustrate, Binda et al. (2022) suggest that researchers should particularly focus on adverse events in their mindfulness meditation research. People may fear mindfulness or consider it a waste of time, and thus, may not commit themselves to mindfulness or engage in mindfulness research, which may crucially impact potential results of mindfulness. To obtain comprehensive findings on the impact of mindfulness, it is important to investigate these fears, blocks, or resistances within the wider population (Gilbert et al., 2023).

In this respect, Gilbert et al. (2023) developed a fears and resistances to mindfulness scale (FRM). Fears of mindfulness refer to concerns about getting involved in activities and their consequences. Resistances to mindfulness refer to actively rejecting mindfulness or mindful activity because of time, resources, and meaningfulness or considering it incongruent with one's personal values. When developing the FRM, Gilbert et al. (2023) respectively asked concerns that are faced by one of the authors as a mindfulness practitioner and mindful compassion retreats. They additionally asked what sort of difficulties mindfulness practitioners in the UK connected to <https://www.mindfulnessassociation.net> have when practicing mindfulness and the following themes appeared in their analysis: the difficulty of sitting and concentrating on breathing and what emerges, the challenging nature of the content arising in mind, and criticizing oneself when they do not correctly practice. They generated items and selected 31 items to perform factor analyses in British, Australian, and Portuguese samples. They provided the following instructions with participants before they rated the items: "We can often experience our minds as full of different thoughts, feelings, desires, wants and wishes. One thought can lead to another and we can get caught up in loops of thoughts and feelings. To help us not get so caught up in these "loops," it can be useful to help the mind to settle just by paying attention, becoming observant and noticing what is in our minds, without following or reacting to these thoughts, feelings, or desires. This is sometimes called mindfulness or being mindful. We are interested in how people experience times when they let their minds settle by being mindful—just observing the flow of one's thoughts or feelings. Some people try to have experiences like this, letting their mind settle and becoming stiller, whereas other people do not like having something to focus on or being less active. We are just interested in your experiences. There are no right or wrong answers." Exploratory factor analysis demonstrated a two-factor solution consistent with the literature that explained 54.56% of the variance, and confirmatory factor analysis showed a good fit upon four modifications among Items 5 and 10; 4 and 21; 19 and 22; 10 and 15. The number of the items was reduced to 19 items resulting from high loadings or low communalities.

The FRM includes 19 items and consists of two subscales: Fears of mindfulness and resistances to mindfulness. Reliability scores for the fears of mindfulness subscale ranged from .87 to .91 while ranging between .89 to .91 for the resistances to mindfulness through Omega and Cronbach's alpha coefficients. Test-retest reliability was only conducted in the British sample with 29 participants over a two-week period, and its score was .84 for both subscales. There was no significant difference between male and female participants for the fears of mindfulness and the resistances to mindfulness scales in all samples except for the significant difference between male and female participants for the resistances to mindfulness scales in the Australian sample. Fears of mindfulness and resistances to mindfulness had low and/or medium level positive associations with depression, anxiety, stress, fears of compassion for self and others, fears of compassion from others, inadequate self, hated self while having low and/or medium level negative relationships with reassured self, observation, description, awareness, nonreactivity, and nonjudgement. The FRM is a validated instrument to identify the reasons behind potential struggles with mindfulness that people have and who tends to get challenged. The FRM can help increase awareness among mindfulness participants, and raise awareness among mindfulness trainers and facilitate mindfulness research and practice to provide novel solutions with them. Given that the theoretical structure of the FRM suggests the existence of a unifying construct extending beyond the subscales, we reason that a bifactor model may offer a practical approach to measure the overarching construct of

“mindfulness avoidance” as the FRM attempts to assess individual differences in fears and resistances to mindfulness. A general “mindfulness avoidance” factor may explain shared variance among all items, more accurately representing the relationships among the measured variables while still considering the explanatory power of the subscales. A bifactor model of the FRM may also have practical implications as well as its theoretical implications. A bifactor model of the FRM can shed light on individual differences in mindfulness avoidance and inform researchers and practitioners about potential tailored approaches addressing obstacles to mindfulness engagement and practice. The primary goal of this research is to evaluate psychometric properties of the FRM among Turkish-speaking participants. The secondary goal of the study is to test a bifactor model of the FRM, several types of validity, and measurement invariance analyses.

## Methodology

### Measures

**Fears and Resistances to Mindfulness Scale (FRM) (Gilbert et al., 2023):** The FRM assesses fears of mindfulness and resistances to mindfulness with a total of 19 items. It is rated on a 5-point Likert scale ranging from “1 = Not at all like me” to “5 = Extremely like me”. In this study, the FRM subscales demonstrated good internal consistency: Fears of Mindfulness ( $\alpha = .87$ ); Resistance to Mindfulness ( $\alpha = .83$ ).

**Depression Anxiety Stress Scale-21 (DASS-21) (Lovibond & Lovibond, 1995; Turkish version: Yildirim et al., 2018):** The DASS-21 measures individuals’ depression, anxiety, and stress levels with a total of 21 items. It has three subscales rated on a 4-point Likert scale ranging from “0 = did not apply to me at all” to “3 = applied to me very much or most of the time”. Higher scores in each subscale demonstrate higher levels in that subscale. In this study, the subscales of the DASS-21 exhibited adequate internal consistency: Depression ( $\alpha = .88$ ); Anxiety ( $\alpha = .87$ ); Stress ( $\alpha = .87$ ).

**Multidimensional Existential Meaning Scale (MEMS) (George & Park, 2017; Turkish version: Subasi et al., 2024):** The MEMS measures meaning in life with comprehension, purpose, and mattering subdimensions. Each subscale has 5 items (e.g., “I can make sense of the things that happen in my life”; “I have overarching goals that guide me in my life”; “I am certain that my life is of importance”) rated on a 7-point Likert scale ranging from “1 = Very strongly disagree” to “7 = Very strongly agree”. Internal consistency scores of the subscales demonstrated high levels of reliability in this study: Comprehension ( $\alpha = .88$ ); Purpose ( $\alpha = .92$ ); Mattering, ( $\alpha = .84$ ).

**Satisfaction with Life Scale (SWLS) (Diener et al., 1985; Turkish version: Köker, 1991):** The SWLS measures life satisfaction through one factor and includes 5 items (e.g., “I am satisfied with my life”) rated on a 7-point Likert scale ranging from “1 = Strongly disagree” to “7 = Strongly agree”. In this study, the SWLS showed adequate internal consistency ( $\alpha = .87$ ).

**Mental Health Continuum-Short Form (MHC-SF) (Keyes et al., 2008; Turkish version: Kardaş & Yalcin, 2018):** The MHC-SF measures well-being with a total of 14 items rated on a 6-point Likert scale ranging from “0 = Never” to “5 = Every day” considering the question stem “During the past month, how often did you feel ...” for each. It has a total score and three subscales: Emotional well-being (EWB) (e.g., “... happy”; 3 items); Social well-being (SOWB) (e.g., “... that you had something important to contribute to society”); Psychological well-being (PWB) (e.g., “... that your life has a sense of direction or meaning to it”). In this study, the MHC-SF and its subscales demonstrated adequate internal consistency: MHC-SF ( $\alpha = .92$ ); EWB ( $\alpha = .86$ ); SOWB ( $\alpha = .85$ ); PWB ( $\alpha = .87$ ).

### Turkish Validation of the FRM

We received permission to adapt the FRM into Turkish from the team of the FRM developers. We followed the double-translation method. Two Turkish psychologists (PhD students in psychology and counseling psychology) translated the FRM items into Turkish. Two experts in psychology and social work and three Turkish language specialists reviewed and revised the items. One PhD student in psychology and one social worker translated the revised version back to English. The finalized version was reviewed by two experts in psychology. The final version of the FRM was tested with a total of 60 participants in a pilot study. Fears of Mindfulness ( $\alpha = .87$ ) and Resistance to Mindfulness ( $\alpha = .76$ ) showed adequate reliability with good item-rest correlations ranging from .30 to .77.

### Data Collection

This cross-sectional study employed the following criteria to participate in the study: being at least over 18 years old and being a student of preparatory, undergraduate, or graduate programs. The present research utilized a convenience sampling by collecting data online through a Google Forms link in the first semester of the 2023-2024 academic year in Türkiye. The present research adhered to the Helsinki Declaration and its later amendments, and followed ethical principles such as anonymity, confidentiality, and right to withdraw from the study.

A sample of 450 participants granted informed consent on a voluntary basis. Two participants were under 18 years old and thus, their data were excluded. A total of 448 (369 female participants) were included in the analyses. The age range of the participants ranged from 18 to 57 ( $M = 22.27$ ;  $SD = 4.14$ ). 4 participants were pursuing PhD, 41 participants were doing a master degree, 389 participants were pursuing an undergraduate degree, and 14 participants were preparatory students. 101 participants reported low economic level, 329 had middle economic level, and 18 reported high economic level.

### Data Analysis

The present research employed Jamovi 2.3.21 and JASP 0.18.1.0 to conduct the analyses. All raw data was evaluated for missing values, outliers, and normality assumptions. There was no missing data. After checking z-scores of each FRM item considering extreme values, 2 scores were detected as outliers ranging out of -3 and +3, which was assumed not to have a significant effect on the findings. We removed them from the data set. It is recommended that a sample size should be higher than 200 participants for most models (Kline, 2015). The FRM items were mainly close to normal distributions between -1 and +1 considering skewness and kurtosis.

First, we calculated descriptive statistics, skewness, and kurtosis. Second, we conducted a Confirmatory Factor Analysis (CFA) to evaluate the structural validity of the FRM, and carried out measurement invariance analyses of the FRM across gender groups with Mplus and Diagonally Weighted Least Squares (DWLS) with robust standard error and Listwise deletion. We assessed fit indices following the guidelines in CFA (Byrne, 1994; Fabrigar et al., 1999; Kline, 2015): the chi-square, the Comparative Fit Index (CFI) (values higher than .90 demonstrate acceptable fit; values higher than .95 show a good fit), the Tucker–Lewis index (TLI) (should be higher than .90), the (Standardized) Root Mean Square Residual (SRMR) (values lower than .08 show acceptable fit), the Root Mean Square Error of Approximation (RMSEA) (values lower than .08 show acceptable fit). Third, we tested a bifactor model of the FRM through a structural equation model following the suggestions by Rodriguez et al. (2016) with Mplus and Diagonally Weighted Least Squares (DWLS) with Listwise deletion. We calculated explained common variance (ECV), the percent of uncontaminated correlations (PUC), omega indices of each factor ( $\omega_{HS}$ ), hierarchical omega indices of the general factor ( $\omega_H$ ) and specific factors ( $\omega_{HS}$ ), item-level explained common variance (IECV), factor determinacy (FD), H index by Hancock and Mueller (2001) by a formula in excel (Dueber, 2017). When ECV is greater than  $> .60$  and  $PUC < .80$ , and the omega index of the general factor is greater than  $.80$  and hierarchical omega indices of the specific factors are lower than  $.50$ , the general score of the items can be considered unidimensional (Reise et al., 2013). IECV values greater than  $.80$  or  $.85$  provide a set of unidimensional items representing the general factor's content (Stucky & Edelen, 2015). Factor determinacy value should be higher than  $.90$  (Gorsuch, 1983). H index value should be higher than  $.80$  to prove a well-conceptualized underlying construct (Hancock & Mueller, 2001). Finally, we analyzed the concurrent and divergent validity of the FRM by correlations with psychopathology and well-being indicators.

Descriptive statistics, Pearson's correlation tests, regression analyses, and reliability analyses were performed through Jamovi 2.3.21. The confirmatory factor analysis and bifactor model were carried out through JASP 0.18.1.0. with Mplus.



## Results

### Descriptive Statistics of the Scales

Table 1 demonstrates the following statistics for the scales used in the study: means, standard deviations (SD), skewness, kurtosis, Cronbach alpha, and item-rest correlations. The statistics show that the scales were normally distributed.

**Table 1.** Descriptive Statistics of the Scales.

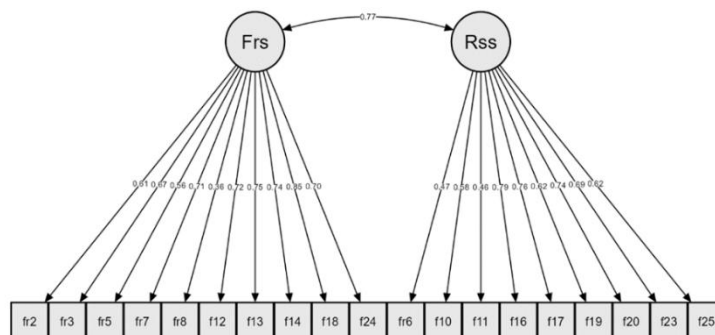
	C	P	M	SWLS	EWB	SOWB	PWB	MHC	D	A	S	FM	RM
M	18.49	19.78	18.15	19.85	11.98	17.15	24.93	54.06	9.61	8.76	10.77	27.25	21.52
SD	4.62	4.62	4.93	6.67	3.28	5.79	6.38	13.53	5.68	5.62	5.46	8.46	7.03
S	-0.62	-0.95	-0.51	-0.14	-0.30	0.04	-0.51	-0.31	0.19	0.33	-0.17	0.23	0.43
K	0.05	0.76	-0.36	-0.51	-0.21	-0.64	0.07	-0.12	-0.85	-0.83	-0.79	-0.53	-0.40

*Note.*  $N = 448$ .  $M$  = Mean;  $SD$  = Standard Deviation;  $S$  = Skewness;  $K$  = Kurtosis;  $\alpha$  = Cronbach's Alpha.  $C$  = Comprehension;  $P$  = Purpose;  $M$  = Mattering;  $SWLS$  = Life Satisfaction;  $EWB$  = Emotional Well-Being;  $SOWB$  = Social Well-Being;  $PWB$  = Psychological Well-Being;  $MHC$  = Mental Health Continuum-Short Form;  $D$  = Depression;  $A$  = Anxiety;  $S$  = Stress;  $FM$  = Fears of Mindfulness;  $RM$  = Resistance to Mindfulness. Skewness Standard Error was 0.12. Kurtosis Standard Error was 0.23.

### Structural Validity

As illustrated in Figure 1, the FRM subscales demonstrated a good fit (Figure 1): [ $\chi^2 = 631.54$ ,  $df = 151$ ,  $p = .00$ ],  $CFI = .976$ ,  $TLI = .973$ ,  $RMSEA = .08$ ,  $90\%CI[.08, .09]$ ,  $SRMR = 0.07$ . The indices indicated that the FRM subscales fitted well with the data, representing the latent constructs.

**Figure 1.** Path Diagram for the CFA of the FRM.



### Measurement Invariance Analyses Across Gender Groups

As shown in Table 2, indices for each type of measurement invariance analyses demonstrated that the FRM subscales exhibited consistent measurement properties across gender (calculate the differences of CFI and RMSEA). This provided support for the cross-group validity of the subscales.

**Table 2.** Measurement invariance analyses of the FRM subscales across gender groups.

	$\chi^2$	df	P	CFI	TLI	RMSEA	SRMR
Configural Invariance	829.32	355	< .001	0.98	0.98	0.08	0.08
Metric Invariance	900.81	317	< .001	0.97	0.97	0.09	0.08
Scalar Invariance	885.48	374	< .001	0.98	0.98	0.08	0.08
Strict Invariance	885.48	374	< .001	0.98	0.98	0.08	0.08

*Note.*  $\chi^2$  = Chi-square;  $df$  = Degree of Freedom;  $p$  = Probability;  $CFI$  = Comparative Fit Index;  $TLI$  = Tucker Lewis Index;  $RMSEA$  = Root Mean Square Error of Approximation;  $SRMR$  = Standardized Root Mean Square Residual.

### A Bifactor Model of the FRM

The bifactor model was found to be the best model compared to the two-factor model of the FRM (Table 3). The results showed that the bifactor model demonstrated a superiority in all the indices: [ $\chi^2 = 374.78$ ,  $df = 133$ ,  $p = .00$ ], CFI = .99, TLI = .98, RMSEA = .06, SRMR = .05. The Explained Common Variance (ECV) index was .70. This index predominantly accounted for the observed variance across all the items by the general factor. Furthermore, the subscales had unique contributions and the PUC value was .53. These findings pointed an underlying fears and resistances to mindfulness construct with a general factor. The omega coefficients were between .87 and .90 for the subscales while the omega coefficient of the general factor was .93, showing good reliability. The hierarchical omega coefficients for the subscales ranged from .19 to .29, demonstrating explained variance by the subscales remaining after the contribution of the general factor. These results both supported the multidimensional and unidimensional structure of the FRM with a strong support to the discriminant and convergent validity of the subscales. Seven items of the FRM general were greater than .80 based on the IECV values, allowing to compose a set of unidimensional items (shown italic in Table 3). H index value was .92 and FD value was .94. These values indicated high correlations between the subscales and general factors, providing evidence for a well-defined latent construct. The bifactor model can be regarded as a better representation of the FRM pursuant to the findings obtained.

**Table 3.** Bifactor model of the FRM.

Item No	FRM General	Fears of Mindfulness	Resistance to Mindfulness	IECV
Item 2	.500	.380		.634
Item 3	.540	.430		.612
Item 5	.450	.360		.610
Item 6	.400		.320	.610
Item 7	.610	.350		.752
Item 8	.190	.500		.126
Item 10	.480		.410	.578
Item 11	.370		.360	.514
Item 12	.570	.470		.595
Item 13	.560	.610		.457
Item 14	.650	.330		.795
Item 16	.710		.330	.822
Item 17	.680		.300	.837
Item 18	.850	.110		.984
Item 19	.500		.510	.490
Item 20	.670		.280	.851
Item 23	.620		.310	.800
Item 24	.620	.310		.800
Item 25	.670		-.120	.969
PUC	.526			
FD	.937			
H	.921			

Note. IECV = Item-level Explained Common Variance, PUC = Percent of Uncontaminated Correlations, FD = Factor Determinacy, H = H Index.

### Concurrent Validity

Table 4 shows the relationships between the FRM general, fears of mindfulness, resistance to mindfulness, depression, anxiety, and stress. Fears of mindfulness subscale has medium positive associations with depression, anxiety, and stress (.52, .59, and .56). The FRM general has medium positive associations with depression, anxiety, and stress (.43, .50, and .46). Resistance to mindfulness subscale has low positive associations with depression, anxiety, and stress (.23, .28, and .24). The FRM general and fears of mindfulness show similar associations with depression, anxiety, and stress. These results demonstrate the concurrent validity of the FRM.

**Table 4.** The Associations between the FRM.

	Fears of Mindfulness	Resistance to Mindfulness	FRM
Depression	.52 ***	.23 ***	.43 ***
Anxiety	.59 ***	.28 ***	.50 ***
Stress	.56 ***	.24 ***	.46 ***

Note. \*\*\*  $p < .001$

### Divergent Validity

Table 5 shows the relationships between the FRM general, fears of mindfulness, resistance to mindfulness, satisfaction with life, emotional well-being, social well-being, psychological well-being, mental health continuum, comprehension, purpose, and mattering. Fears of mindfulness had low negative associations with well-being indicators and no association with social well-being. Resistance to mindfulness had low negative associations with purpose and mattering, a low positive association with social well-being, and no associations with satisfaction with life, emotional well-being, psychological well-being, mental health continuum, and comprehension. The FRM general had low negative associations with emotional well-being, psychological well-being, comprehension, purpose, and mattering, and no associations with satisfaction with life, social well-being, and mental health continuum.

**Table 5.** The associations between the FRM general, the FRM subscales, and well-being indicators.

	Fears of Mindfulness	Resistance to Mindfulness	FRM
Life satisfaction	-.19 ***	.06	-.09
Emotional well-being	-.21 ***	.01	-.12 *
Social well-being	-.09	.18 ***	.04
Psychological well-being	-.22 ***	-.04	-.15 **
Mental health continuum	-.19 ***	.06	-.09
Comprehension	-.28 ***	-.09	-.21 ***
Purpose	-.18 ***	-.12 **	-.17 ***
Mattering	-.27 ***	-.12 **	-.23 ***

Note. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

## Discussion

Our results indicate that the original two-order factor model of the FRM has been replicated in a Turkish sample by a good fit. The FRM subscales, fears of mindfulness and resistance to mindfulness, demonstrate acceptable indices and good internal consistency. Measurement invariance analyses of the FRM subscales show that the FRM subscales have consistent psychometric properties across gender groups. The bifactor model of the FRM demonstrates that a general factor of the FRM with high reliability shows a better fit in comparison to the original two-factor structure. The FRM general may be used as a higher-order factor both in research and clinical practice as it can reflect a better representation of the FRM. This higher-order factor can be helpful in measuring fears and resistances to mindfulness and be considered “mindfulness avoidance.” Our research is the first study to provide a second-order factor to holistically measure fears and resistances to mindfulness.

The FRM subscales and the FRM general indicate structural validity, discriminant validity, concurrent validity, and divergent validity. In relation to concurrent validity, the FRM subscales and the FRM general demonstrate moderate positive relationships with depression, anxiety, and stress. These results are in line with the findings of the original FRM study. Gilbert et al. (2023) has also found that fears of mindfulness has moderate positive relationships with depression, anxiety, and stress, and that resistance to mindfulness has low moderate positive relationships with depression, anxiety, and stress. These findings lend nice support for the fact that people may have difficulties with observing their emotional states and thoughts; consequently, they are likely to fear mindfulness and show resistances to it. These suggest that adverse effects observed in previous mindfulness research may be closely related to individual differences in fears and resistances to mindfulness. Fears and resistances to mindfulness may be connected to depression, anxiety, self-criticism, and panic (Shapiro, 1992), restlessness (Baer et al., 2021), rumination (Aizik-Reebs et al., 2021), alienation (Kaufman et al., 2021), and poorer self-control (Osin & Turilina, 2022).



With regard to divergent validity, the FRM subscales and the FRM general show either negative low or no associations with well-being indicators (i.e., life satisfaction, mental health continuum, and meaning in life) except a weak positive relationship between resistances to mindfulness and social well-being. These results indicate initial discoveries with well-being indicators in the context of fears and resistances to mindfulness. These may emerge from previous adverse experiences attached to mindfulness (Gilbert et al., 2023). Mindfulness practices can trigger negative symptomatology and undermine mental health among certain individuals. These may cause these individuals to develop fears and resistances to mindfulness, which consequently limits them to have the benefits of mindfulness. As mindfulness may be challenging for certain individuals, they may already have higher levels of fears and resistances to mindfulness. These individuals tend to not engage in mindful practice and thus, are less likely to have beneficial well-being outcomes due to mindfulness (e.g., Brown & Ryan, 2003; Gong et al., 2023). Ultimately, this suggests that these individuals may have less satisfaction with their life, experience worse mental health outcomes, and feel less meaningful in their lives.

In terms of the bifactor model, the FRM offers a valuable tool to identify fears and resistances to mindfulness as an individual trait that the current study terms as “mindfulness avoidance.” This model is likely to precisely offer a more comprehensive representation of mindfulness-related barriers compared to fears and resistances to mindfulness themselves (Gilbert et al., 2023). However, this does not diminish the importance of measuring the FRM subscales. Mindfulness avoidance can simplify assessment, providing an accurate measure that can guide interventions and facilitate the identification of individuals who may struggle with mindfulness given individual differences. Mindfulness avoidance is closely associated with worse outcomes in well-being and greater depression, anxiety, and stress. These findings imply that measuring and accordingly addressing it can improve mental health outcomes. As the present research is the first study to introduce mindfulness avoidance as a higher-order factor, this study opens new avenues for revealing its associations with and/or outcomes in variables such as rumination, self-criticism, self-guilt, and internalized shame, suggesting further research areas.

Mindfulness is beneficial for improving mental health outcomes, promoting well-being, and reducing mental health symptoms (e.g., Davis & Hayes, 2011; Keng et al., 2011). It is important to address why people struggle with mindfulness and who is more likely to avoid mindfulness. The Turkish version of the FRM provides a valuable tool to measure both distinct subscales (fears of mindfulness and resistance to mindfulness) and a general factor (mindfulness avoidance) to handle this. The Turkish FRM can serve as a facilitator to identify individuals’ attitudes and barriers towards mindfulness. Accordingly, researchers can identify and control potential challenges against mindfulness practice or cultivating mindfulness in research in various populations. Longitudinal research can focus on individual changes in fears and resistances to mindfulness. Practitioners can facilitate people to engage in mindfulness when presenting it by training on the potential benefits of mindfulness upon identifying fears and/or resistances to mindfulness. Clinicians can tailor treatment plans and interventions, and monitor changes or progress during psychotherapy using the FRM.

This study has several limitations. The cross-sectional nature of the study does not allow to speculate any causality, requiring further experimental and longitudinal research. The present study recruits preparatory, undergraduate, and graduate students. The Turkish version of the FRM can be tested in different populations and clinical groups. The current study utilized self-report measures, which may raise concerns about subjective perceptions and social desirability. The present research does not extensively control personality traits or prior or present mindfulness experience, which should be addressed in future studies.

## Conclusion

The current research replicates the original two-factor of the FRM and provides a novel psychometric property to measure the FRM as a general factor among Turkish-speaking participants. The Turkish FRM fully confirms the original findings of the FRM. The Turkish FRM is a reliable and valid instrument to identify fears and resistances to mindfulness both through distinct factors or a higher-order factor.

**Funding Disclosure:** This article was prepared within the framework of the HSE University Basic Research Program.

**Conflicts of Interest:** On behalf of all authors, the corresponding author states that the authors have no competing interests to declare that are relevant to the content of this article.

**Data Availability:** Available on reasonable request.

**Ethics Approval and Consent to Participate:** This study was performed in line with the 1964 Helsinki Declaration, including its later amendments. Approval was granted by the Ethical Committee of Social and Humanities Research of Istanbul University-Cerrahpasa with a reference number assigned, 2024/28 E-74555795-050.04-920329

## References

- Aizik-Reebs, A., Shoham, A., & Bernstein, A. (2021). First, do no harm: An intensive experience sampling study of adverse effects to mindfulness training. *Behaviour Research and Therapy*, 145, 103941. <https://doi.org/10.1016/j.brat.2021.103941>
- Baer, R. A., Smith, G. T., Hopkins, J., Krietemeyer, J., & Toney, L. (2006). Using self-report assessment methods to explore facets of mindfulness. *Assessment*, 13(1), 27-45. <https://doi.org/10.1177/1073191105283504>
- Baer, R., Crane, C., Montero-Marin, J., Phillips, A., Taylor, L., Tickell, A., ... & MYRIAD team. (2021). Frequency of self-reported unpleasant events and harm in a mindfulness-based program in two general population samples. *Mindfulness*, 12, 763-774. <https://doi.org/10.1007/s12671-020-01547-8>
- Binda, D. D., Greco, C. M., & Morone, N. E. (2022). What are adverse events in mindfulness meditation?. *Global Advances in Health and Medicine*, 11, <https://doi.org/10.1177/2164957X221096640>
- Britton, W. B., Lindahl, J. R., Cooper, D. J., Canby, N. K., & Palitsky, R. (2021). Defining and measuring meditation-related adverse effects in mindfulness-based programs. *Clinical Psychological Science*, 9(6), 1185-1204. <https://doi.org/10.1177/2167702621996340>
- Brown, K. W., & Ryan, R. M. (2003). The benefits of being present: Mindfulness and its role in psychological well-being. *Journal of Personality and Social Psychology*, 84(4), 822-848. <https://doi.org/10.1037/0022-3514.84.4.822>
- Byrne, B. M. (1994). *Structural Equation Modeling with EQS and EQS/Windows*. Thousand Oaks, CA: Sage Publications.
- Cebolla, A., Demarzo, M., Martins, P., Soler, J., & Garcia-Campayo, J. (2017). Unwanted effects: Is there a negative side of meditation? A multicentre survey. *PloS one*, 12(9), e0183137. <https://doi.org/10.1371/journal.pone.0183137>
- Crane, R. S., Kuyken, W., Williams, J. M. G., Hastings, R. P., Cooper, L., & Fennell, M. J. (2012). Competence in teaching mindfulness-based courses: concepts, development and assessment. *Mindfulness*, 3, 76-84. <https://doi.org/10.1007/s12671-011-0073-2>
- Davis, D. M., & Hayes, J. A. (2011). What are the benefits of mindfulness? A practice review of psychotherapy-related research. *Psychotherapy*, 48(2), 198. <https://doi.org/10.1037/a0022062>
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The satisfaction with life scale. *Journal of Personality Assessment*, 49(1), 71-75. [https://doi.org/10.1207/s15327752jpa4901\\_13](https://doi.org/10.1207/s15327752jpa4901_13)
- Donald, J. N., Bradshaw, E. L., Ryan, R. M., Basarkod, G., Ciarrochi, J., Duineveld, J. J., ... & Sahdra, B. K. (2020). Mindfulness and its association with varied types of motivation: A systematic review

and meta-analysis using self-determination theory. *Personality and Social Psychology Bulletin*, 46(7), 1121-1138. <https://doi.org/10.1177/0146167219896136>

- Dueber, D. M. (2017). *Bifactor indices calculator: A microsoft excel-based tool to calculate various indices relevant to bifactor CFA models*. <https://doi.org/10.13023/edp.tool.01>
- Fabrigar, L. R., Wegener, D. T., MacCallum, R. C., & Strahan, E. J. (1999). Evaluating the use of exploratory factor analysis in psychological research. *Psychological Methods*, 4(3), 272–299. <https://doi.org/10.1037/1082-989X.4.3.272>
- Farias, M., Maraldi, E., Wallenkampf, K. C., & Lucchetti, G. (2020). Adverse events in meditation practices and meditation-based therapies: a systematic review. *Acta Psychiatrica Scandinavica*, 142(5), 374-393. <https://doi.org/10.1111/acps.13225>
- George, L. S., & Park, C. L. (2017). The multidimensional existential meaning scale: A tripartite approach to measuring meaning in life. *The Journal of Positive Psychology*, 12(6), 613- 627. <https://doi.org/10.1080/17439760.2016.1209546>
- Germer, C. K., Siegel, R. D., & Fulton, P. R. (2013). *Mindfulness and psychotherapy*. The Guilford Press.
- Gilbert, P. (2022). Formulation and fears, blocks and resistances. In P. Gilbert & G. Simos (Eds.), *Compassion focused therapy: Clinical practice and applications* (pp. 207–239). Routledge.
- Gilbert, P., & Simos, G. (Eds.). (2022). *Compassion focused therapy: Clinical practice and applications*. Routledge.
- Gilbert, P., Basran, J., Plowright, P., Matos, M., Kirby, J., & Petrocchi, N. (2023). Fears and resistances to mindfulness: Development of a self-report scale. *Mindfulness*, 14(11), 2602- 2616. <https://doi.org/10.1007/s12671-023-02171-y>
- Gong, X. G., Wang, L. P., Rong, G., Zhang, D. N., Zhang, A., & Liu, C. (2023). Effects of online mindfulness-based interventions on the mental health of university students: A systematic review and meta-analysis. *Frontiers in Psychology*, 14, 1073647. <https://doi.org/10.3389/fpsyg.2023.1073647>
- Gorsuch, R. L. (1983). *Factor analysis* (2nd ed.). Erlbaum.
- Hancock, G. R., & Mueller, R. O. (2001). Rethinking construct reliability within latent variable systems. In R. Cudeck, S. du Toit, & D. Sorbom (Eds), *Structural equation modeling: Present and future—A Festschrift in honor of Karl Joreskog* (pp. 195–216). Scientific Software International.
- Hülshager, U. R., Alberts, H. J., Feinholdt, A., & Lang, J. W. (2013). Benefits of mindfulness at work: the role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*, 98(2), 310. <https://doi.org/10.1037/a0031313>
- Kabat-Zinn, J. (2015). Mindfulness. *Mindfulness*, 6(6), 1481-1483. <https://doi.org/10.1007/s12671-015-0456-x>
- Kardaş, F., & Yalcin, I. (2018). An Adaptation Study of the Balanced Measure of Psychological Needs (BMPN) Scale to Turkish Culture. *Çukurova University Faculty of Education Journal*, 47(2). <http://doi.org/10.14812/cuefd.408515>
- Kaufmann, M., Rosing, K., & Baumann, N. (2021). Being mindful does not always benefit everyone: Mindfulness-based practices may promote alienation among psychologically vulnerable people. *Cognition and Emotion*, 35(2), 241-255. <https://doi.org/10.1080/02699931.2020.1825337>
- Keng, S. L., Smoski, M. J., & Robins, C. J. (2011). Effects of mindfulness on psychological health: A review

- of empirical studies. *Clinical Psychology Review*, 31(6), 1041-1056. <https://doi.org/10.1016/j.cpr.2011.04.006>
- Keyes, C. L., Wissing, M., Potgieter, J. P., Temane, M., Kruger, A., & Van Rooy, S. (2008). Evaluation of the mental health continuum–short form (MHC–SF) in setswana-speaking South Africans. *Clinical Psychology & Psychotherapy*, 15(3), 181-192. <https://doi.org/10.1002/cpp.572>
- Kline, R. B. (2015). *Principles and practice of structural equation modeling*. The Guilford Press.
- Köker, S. (1991). *Normal ve sorunlu ergenlerin yaşam doyumu düzeyinin karşılaştırılması* (Unpublished master's thesis, Balıkesir University Institute of Social Sciences).
- Kuijpers, H. J., Van der Heijden, F. M. M. A., Tuinier, S., & Verhoeven, W. M. A. (2007). Meditation-induced psychosis. *Psychopathology*, 40(6), 461-464. <https://doi.org/10.1159/000108125>
- Langer, E. J. (2016). *The power of mindful learning*. Hachette UK.
- Lindahl, J. R., Fisher, N. E., Cooper, D. J., Rosen, R. K., & Britton, W. B. (2017). The varieties of contemplative experience: A mixed-methods study of meditation-related challenges in Western Buddhists. *PloS One*, 12(5), e0176239. <https://doi.org/10.1371/journal.pone.0176239>
- Lovibond, P. F., & Lovibond, S. H. (1995). The structure of negative emotional states: Comparison of the Depression Anxiety Stress Scales (DASS) with the Beck Depression and Anxiety Inventories. *Behaviour Research and Therapy*, 33(3), 335-343. [https://doi.org/10.1016/0005-7967\(94\)00075-U](https://doi.org/10.1016/0005-7967(94)00075-U)
- Osin, E. N., & Turilina, I. I. (2022). Mindfulness meditation experiences of novice practitioners in an online intervention: Trajectories, predictors, and challenges. *Applied Psychology: Health and Well-Being*, 14(1), 101–121. <https://doi.org/10.1111/aphw.12293>
- Reise, S. P., Scheines, R., Widaman, K. F., & Haviland, M. G. (2013). Multidimensionality and structural coefficient bias in structural equation modeling a bifactor perspective. *Educational and Psychological Measurement*, 73(1), 5–26. <https://doi.org/10.1177/0013164412449831>
- Rodriguez, A., Reise, S. P., & Haviland, M. G. (2016). Evaluating bifactor models: Calculating and interpreting statistical indices. *Psychological Methods*, 21(2), 137–150. <https://doi.org/10.1037/met0000045>
- Ryan, R. M., & Deci, E. L. (2017). *Self-Determination Theory: Basic Psychological Needs in Motivation, Development, and Wellness*. The Guilford Press.
- Shapiro Jr, D. H. (1992). Adverse Effects of Meditation: A Preliminary Investigation of Long-Term Meditators. *International Journal of Psychosomatics*, 39(1-4), 63.
- Shonin, E., Van Gordon, W., & Griffiths, M. D. (2014). Are there risks associated with using mindfulness for the treatment of psychopathology?. *Clinical Practice*, 11(4), 389-392. <http://doi.org/10.2217/cpr.14.23>
- Stucky, B. D., & Edelen, M. O. (2015). Using hierarchical IRT models to create unidimensional measures from multidimensional data. In S. P. Reise & D. A. Revicki (Eds), *Handbook of item response theory modeling: Applications to typical performance assessment* (pp. 183–206). Routledge.
- Subasi, M., Karaman, H., Bulut, S., & Osin, E. N. (2024). *Turkish validation of the Multidimensional Existential Meaning Scale (MEMS): A bifactor model approach*. Manuscript submitted for publication.
- Taylor, G. B., Vasquez, T. S., Kastrinos, A., Fisher, C. L., Puig, A., & Bylund, C. L. (2022). The adverse effects of meditation-interventions and mind–body practices: A systematic

review. *Mindfulness*, 13(8), 1839-1856. <https://doi.org/10.1007/s12671-022-01915-6>

Van Gordon, W., Saphiang, S., Barrows, P., & Shonin, E. (2021). Understanding and practicing emptiness. *Mindfulness*, 12(7), 1845–1848. <https://doi.org/10.1007/s12671-020-01586-1>

Yildirim, A., Boysan, M., & Kefeli, M. C. (2018). Psychometric properties of the Turkish version of the Depression Anxiety Stress Scale-21 (DASS-21). *British Journal of Guidance & Counselling*, 46(5), 582-595. <https://doi.org/10.1080/03069885.2018.1442558>