



Unveiling the Multifaceted Nature of Spirituality: Assessing the Dimensions of the Spirituality Inventory in the Turkish Context—A Preliminary Adaptation and Validity Reliability Study

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Abstract

The measurement of spirituality, a concept with significant implications for mental health, requires instruments that can assess its complexity and diversity without cultural limitations. This study adapts the Dimensions of Spirituality Inventory (DSI) into Turkish, examining its validity and reliability. A linguistic equivalence study with 43 participants showed coefficients between .79 and .91. The test–retest correlation coefficients of the subscales ranged from .35 to .78. The 53-item scale was then administered to 671 adults, and confirmatory factor analysis indicated an acceptable fit. The internal consistency reliability coefficient was .90. Positive correlations with related scales confirmed acceptable criterion-related validity. The study concluded that the Turkish version of the DSI is a valid and reliable tool for use in scientific research in Türkiye.

Keywords Spirituality · Dimensions of spirituality · Scale adaptation · Validity · Reliability

Introduction

Historically, topics such as religion and spirituality have received less attention within the scientific discourse, primarily due to the prevailing positivist paradigms. Nevertheless, since the onset of the twenty-first century, the significance of religion and spirituality in human functionality has gained recognition, catalyzing broader acceptance within scientific circles (Emmons & Paloutzian, 2003; Hill et al., 2000; Miller & Thoresen, 2003; Zinnbauer et al., 1999). Powers (2005) argued that this shift is largely due to therapists recognizing the spiritual dimensions of their clients' mental health challenges, thereby integrating these insights into clinical practice. In

essence, real-world observations have increasingly informed and enriched the scientific study of these areas.

With respect to the emergence of the concept of spirituality, traditional research has centered on the concepts of religion and religiosity. Religiosity refers to practices and experiences linked to transcendent, divine and religious institutions. On the other hand, spirituality was used to describe spiritual practices such as mysticism or nonreligious practices such as séances before it was treated separately in this field (Pargament, 2023). Closer to the present day, different definitions of spirituality have emerged. For example, Benner (1989, p. 20) defines spirituality as “the human response to God’s call for relationship”; Elkins et al. (1988) defines it as “a way of being and experiencing that is characterized by an awareness of the transcendent dimension and identifiable values about self, others and nature”; Hart (1994, p. 23), “the fundamental orientation of an individual’s life, its relation to the ultimate foundations of existence, the transcendence of the human spirit”; Shafranske and Gorsuch (1984, p. 231), “a transcendent dimension in human experience, emerging at moments when the individual seeks the meaning of his or her existence and tries to place the self in a more inclusive ontological context”; Vaughan (1991, p.105), “the subjective experience of the sacred, in contrast to the institutionalization of religion”. Despite the multitude of definitions that exist regarding spirituality, it is a fundamental truth that spirituality has consistently been concerned with the “inner world” and “inner experience” of humanity. It provides a framework for understanding the significance and purpose of a transcendent connection that extends beyond the confines of one’s life and human experience (Sargeant & Yoxall, 2023). This diversity in the definition of spirituality also leads to difficulties in its measurement.

One of the challenges in quantifying spirituality lies in determining whether it should be conceptualized as a singular construct or a multidimensional phenomenon. Research indicates that spirituality is not perceived as a universal truth (Ammerman, 2013; Eisenmann et al., 2016; Steensland et al., 2018; Zinnbauer et al., 1997). For instance, Zinnbauer et al. (1997) identified thirteen distinct categories of spirituality based on their studies across various religious and professional groups. Similarly, Eisenmann et al. (2016) proposed a hierarchical model of spirituality with forty-four dimensions initially, which were refined to ten and three dimensions in subsequent analyses. Ammerman (2013) supports these findings, suggesting that spirituality comprises multiple dimensions, which was echoed by Steensland et al. (2018), who described seven unique forms of spirituality. Collectively, these studies highlight the complex and rich nature of spirituality.

Although often associated with religion, spirituality encompasses broader experiences such as the pursuit of meaning, transcendent experiences, commitment, respect, and gratitude toward a mysterious entity, and personal transformation. For example, Pargament (1997) defines spirituality as the quest for the sacred, which is crucial both within and outside religious contexts. Unlike religion, which may involve various sacred and secular pursuits, spirituality strictly addresses the sacred, aiding individuals in finding deeper meaning in life and death through personal and interpersonal connections. Furthermore, spirituality and religion are considered vital in managing life challenges and understanding their causes, influencing coping

mechanisms and responses to life events (Pargament, 1997). Research on the impact of spirituality on mental health, such as that of Larson and Larson's (2003) analysis of more than 1200 studies, suggests that spirituality fosters inner peace and aids in managing stress and anger, thereby offering protection against depression. More recent studies, including that of Coppola et al. (2021), revealed positive correlations between spirituality and mental health during the COVID-19 pandemic. The research conducted by Shattuk and Muehlenbein (2020) demonstrates the correlation between spirituality and not only mental health but also physical health.

To accurately measure spirituality and related constructs, numerous scales have been developed globally, such as the Spirituality Expressions Inventory (Macdonald, 2000), the Assessment of Spirituality and Religious Emotions Scale (ASPIRES) (Piedmont, 2004; Piedmont et al., 2008), and the Daily Spiritual Experiences Scale (Underwood & Teresi, 2002), among others. In Turkey, similar efforts have resulted in instruments such as the Spirituality Scale (Şirin, 2018), the Intrinsic Spirituality Scale (Ekşi et al., 2018), and the Maternal Spiritual Coping Scale (Yaman et al., 2018). Recently, the Dimensions of Spirituality Inventory (Wildman et al., 2024), which expands traditional definitions by incorporating diverse religious and spiritual traditions while avoiding culturally biased assumptions, was introduced. This tool aims to universally assess varied spiritual practices and is being adapted for Turkish cultural contexts to enhance the understanding of spirituality locally. Wildman et al. (2024) summarized the diverse perspectives and confusion within the field with his Dimensions of Spirituality Inventory, introducing a measurement tool with cross-cultural validity to the literature. According to the "Perception of Religiosity in Turkey" report by the Ankara Institute and the Istanbul Policy Center, 92.3% of Turkish people identify as Muslim, with 86% expressing unwavering belief in the existence of God. Given Turkey's diverse cultural landscape and high level of religiosity, it is essential to adapt a comprehensive inventory to measure spirituality in this context.

Methods

Study Group

The scale adaptation study encompassed multiple phases and involved participants across four distinct demographic groups. Data for the research were gathered both online and through direct interpersonal interactions. The entire process of scale adaptation was predicated on volunteer participation, and informed consent was duly obtained from all contributors. In the phase dedicated to linguistic equivalence, data were sourced from 43 university students proficient in both English and Turkish. The construct validity phase involved a diverse sample of 671 adults, predominantly female (83.6%, $n = 561$) and a smaller male contingent (16.4%, $n = 110$). The sample included 69 individuals to assess criterion validity, with a distribution of 62 females and 7 males. The test–retest reliability study was conducted with 49 participants using convenience sampling. This method is noted for its practicality and cost-effectiveness in recruiting volunteers (Monette et al., 1990). Data collection was

primarily conducted via Google Forms, an approach supported by research from Gosling et al. (2004), confirming that online data are generally as reliable and valid as those gathered through traditional methods. Demographic information about the participants in each group is given in Table 1.

Process

This study focuses on adapting the Dimensions of Spirituality Inventory to the Turkish version and evaluating its psychometric properties. Initially, permission was secured from the original scale developers, followed by ethical approval from the Marmara University Ethics Committee. All the data collected from the participants provided informed consent. The scale was adapted to Turkish by considering the steps recommended to be followed in the translation process of a spiritual scale (Koenig & Al Zaben, 2021). After the translation process was completed, psychometric validity studies of the scale were carried out. All the statistical analyses were not item-based but dimension-based, as in the original study. Thus, all the items were included in the analysis in five main dimensions.

Translation Process

During the translation process, weekly meetings were held between the researchers. The first phase involved linguistic equivalence testing, in which the original scale was translated into Turkish by 30 bilingual individuals. The translations were compared, and any differences were reconciled through discussion among the researchers. The reconciled version was back translated into English to ensure consistency. The Turkish version was generated by comparing the back translation, original version, and Turkish version.

A two-step pilot study was conducted to examine the comprehensibility of the scale. The Turkish form was first reviewed by 11 adults, and their opinions on the comprehensibility of the scale items were reviewed. Adjustments were made to the form within the framework of their opinions. Subsequently, the comprehensibility of the scale was re-evaluated item by item by 14 different adults. Within the scope of the comments, definitions of some terms and how they can be interpreted by people

Table 1 Demographic information of the participants

| Group | Gender | Age | N | Total |
|---------------------|--------|-------|-----|-------|
| Group 1 | Female | 19–70 | 561 | 671 |
| CFA | Male | | 110 | |
| Group 2 | Female | 21–34 | 35 | 43 |
| Linguistic validity | Male | | 7 | |
| Group 3 | Female | 19–67 | 62 | 69 |
| Criterion validity | Male | | 7 | |
| Group 4 | Female | 20–55 | 48 | 49 |
| Reliability | Male | | 1 | |

with different beliefs were added to the explanation section of the scale. The Turkish version was proofread by a linguist who is fluent in Turkish and Turkish culture. Thus, the translation of the form into Turkish was completed. To assess linguistic equivalence, the finalized Turkish and the original English versions of the scale were administered to 43 bilingual participants at two-week intervals. The results of the linguistic equivalence analysis showed consistency between the English and Turkish forms and are described in the results section.

Psychometric Validation Process

For construct validity, data were collected from 671 participants and analyzed using confirmatory factor analysis (CFA) to establish the factor structure's alignment with the original scale. The scale's reliability was tested by administering it to 49 individuals twice, two weeks apart, and calculating test–retest reliability coefficients. Cronbach's alpha coefficient of the scale was also calculated. Criterion validity was evaluated through correlations among the Spirituality Scale (Şirin, 2018), the Spiritual Transcendence Scale (İme et al., 2019), the Mystical Experience Scale (Ünal, 2000), and the Intrinsic Spirituality Scale (Ekşi et al., 2018). All validity analyses are described in the results section.

Measures

Dimensions of Spirituality Inventory. The Spirituality Inventory is the scale adapted for this study. It is a 53-item quantitative spirituality assessment with a 5-point Likert scale. It consists of 5 main dimensions and 21 subdimensions with 3 control items. Main dimensions and subdimensions: Value Ideals, Appreciating Beauty, Axiological Sensitivity, Ethical Growth, Kinesthetic/Kinaesthetic, Truth-Seeking. Belief and Belonging: Belief, Ritual, Religious Tradition. Mysticism: Awe, Mystery, Oneness-Unity, Oneness-Transcendence. Personal: Connection, Meaning, Nonconnectedness, Practices, Worship, Self-Discovery, Self-Transformation. Transcendent Beings; Dead Active, Divine Beings, Spiritual Beings. In the original study, the Cronbach's alpha reliability coefficient for the whole inventory was found to be $r=0.92$ (Wildman et al., 2024).

Spirituality Scale. The scale was developed for youth and adults to assess various dimensions of human spirituality, such as searching for the meaning of life, connection with the divine (transcendent), searching for the ultimate truth or the highest value, comprehending the mystery of creation, feeling of attachment to God, customization of belief, feeling of unity with the universe, and having 27 items and a 5-point Likert type. The scale consists of a total of seven factors, and the fit values obtained as a result of confirmatory factor analysis are appropriate. The reliability of the scale was as follows: Cronbach's alpha, 0.90; Guttman, 0.91; Spearman-Brown, 0.89; and test–retest reliability coefficient, $r=0.95$ (Şirin, 2018). In the current study, the Cronbach's alpha values for the scale were 0.84 for the total scale, 0.88 for connection, 0.80 for spiritual life, 0.47 for harmony with nature, 0.41 for spiritual

fulfillment, 0.56 for searching for the meaning of life, 0.71 for transcendence, and 0.63 for spiritual coping.

Spiritual Transcendence Scale. The Spiritual Transcendence Scale developed by Piedmont (1999) and adapted by İme (2019), which aims to determine individuals' spiritual transcendence level, consists of 24 items and is scored on a 5-point Likert scale. Universality, connectedness, and worship satisfaction represent the subdimensions of the scale. The internal consistency reliability (Cronbach's alpha coefficient) is 0.90 for the overall scale, 0.84 for the subdimensions of worship satisfaction, 0.91 for universality, and 0.93 for connectedness. In this study, the Cronbach's alpha value of the scale was found to be 0.81 for the overall scale, 0.61 for satisfaction with worship, 0.81 for universality, and 0.45 for connectedness subdimensions (İme et al., 2019).

The Mysticism Scale. The scale developed by Hood (1975) and adapted by Ünal (2000), which aims to measure individuals' mystical experience levels, consists of 32 items in a 5-point Likert format, 16 of which are positive and 16 of which are negative. A high score on the mystical experience scale indicates a high level of mystical experience (Ünal, 2000). In this study, Cronbach's alpha was found to be 0.93 for the overall scale.

Intrinsic Spirituality Scale. The intrinsic spirituality scale was developed by Hodge (2003) and adapted by Ekşi et al. (2018). Inner spirituality refers to one's relationship with God and ultimate transcendence. It is a 10-point Likert-type scale with a total of 6 items with a single factor. There are no reverse-scored items on the scale. A higher total score obtained from the scale indicates that the individual's inner spirituality is high. Confirmatory factor analyses revealed that the fit indices were acceptable. Cronbach's alpha internal consistency coefficient was calculated to test reliability. According to the reliability analyses, the Cronbach's alpha coefficient for the whole scale was 0.95. (Ekşi et al., 2018). In this study, the Cronbach's alpha value was calculated as 0.94.

Results

Linguistic Validity

During the adaptation of the Dimensions of Spirituality Inventory into Turkish, initial studies focusing on linguistic validity were conducted. Both the Turkish and English versions of the inventory were administered to a bilingual cohort of 43 individuals who were proficient in both languages, with a two-week interval between sessions. The analysis of linguistic validity was performed using correlation values and paired *t*-tests across the two administrations, and the results are detailed in Table 2.

In the realm of linguistic validity, comparative analysis using the *t* test revealed no statistically significant disparity in the mean scores between the English and Turkish versions of the inventory ($t=42$; $p < 0.001$). Furthermore, a robust positive correlation was observed between these versions, as indicated by a Pearson correlation coefficient of 0.91 ($p < 0.001$). Moreover, the analysis extended to the subdimensions

Table 2 Linguistic validity of the dimensions of spirituality inventory

| Inventory | Application | \bar{X} | SD | t | sd | p | r |
|--------------|--------------|-----------|-------|-------|----|------|------|
| Value | English form | 48.41 | 8.69 | -.851 | 42 | .399 | .88* |
| | Turkish form | 48.95 | 7.98 | | | | |
| Belief | English form | 20.41 | 5.43 | -.189 | 42 | .851 | .81* |
| | Turkish form | 20.51 | 4.94 | | | | |
| Mystical | English form | 35.60 | 6.44 | .801 | 42 | .427 | .79* |
| | Turkish form | 35.11 | 5.56 | | | | |
| Personal | English form | 49.58 | 8.73 | -.887 | 42 | .380 | .89* |
| | Turkish form | 50.11 | 7.78 | | | | |
| Transcendent | English form | 20.18 | 5.07 | -.772 | 42 | .444 | .90* |
| | Turkish form | 20.44 | 4.96 | | | | |
| DSI Total | English form | 174.20 | 28.20 | -.539 | 42 | .593 | .91* |
| | Turkish form | 175.13 | 24.52 | | | | |

* $p < .001$

of ‘Value’, ‘Belief’, ‘Mystical’, ‘Personal’, and ‘Transcendent’ within the Turkish version of the DSI compared against scores from the original English format. The results showed no significant differences in the mean scores. Consistently, the Pearson correlation coefficients for these subdimensions confirmed significant and substantial relationships across the board. According to the findings obtained, the scale yields similar results in both languages and has linguistic equivalence.

Construct Validity

CFA was conducted to measure the construct validity of the Turkish version of the inventory. The fit values obtained after the analysis revealed which is given in the Table 3 that the Turkish version of the inventory had acceptable fit indices (Hu & Bentler, 1999; Tabachnick & Fidell, 2001, 2013). The five-dimensional structure of the inventory in the Turkish sample and the factor loadings of the items are given in Fig. 1.

Table 3 The fit values obtained after the CFA

| Fit indices | Value |
|-------------|-------|
| χ^2/sd | 4.29 |
| RMSEA | .070 |
| GFI | .88 |
| AGFI | .85 |
| CFI | .92 |
| TLI | .91 |

RMSEA, root mean square error of approximation, GFI, goodness-of-fit index, AGFI, adjusted goodness-of-fit index, CFI, comparative fit index, TLI, tucker-lewis index

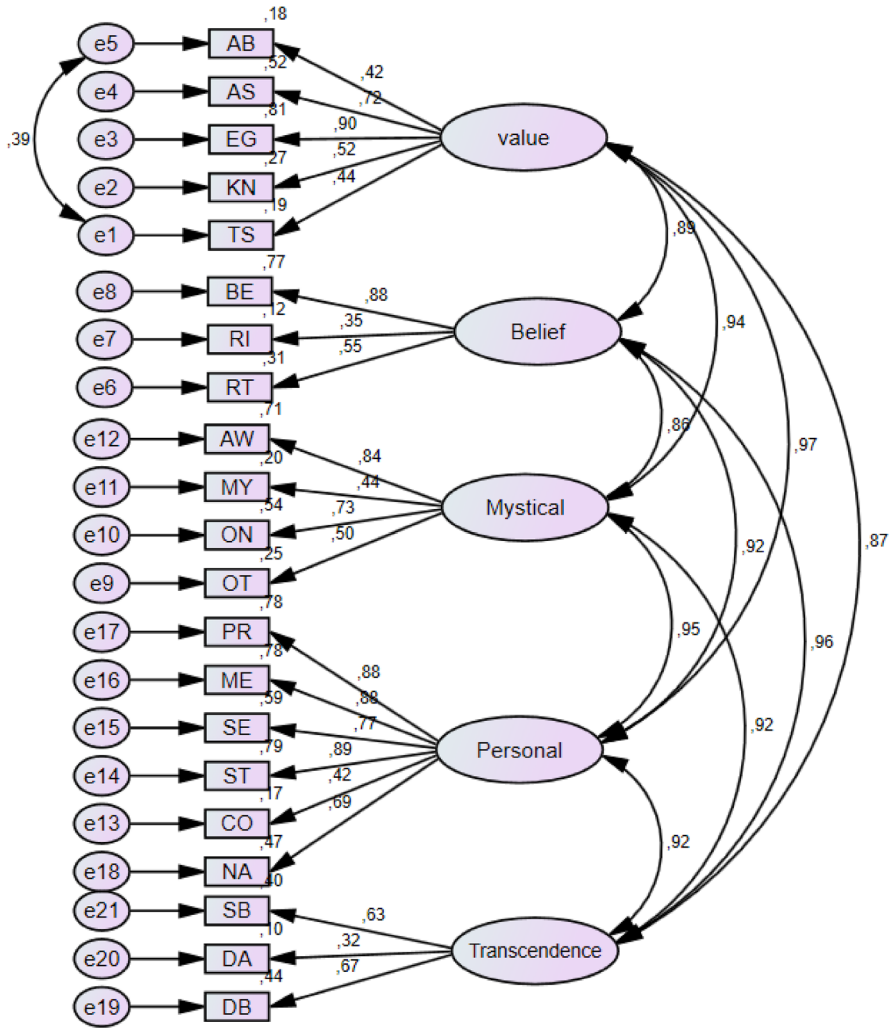


Fig. 1 Confirmatory factor analysis model and standardized item factor loads of the DSI

As illustrated in Fig. 1, the factor loadings for the inventory items range from 0.42 to 0.90, indicating a substantial alignment with the respective factors. Specifically, within the ‘Values’ subdimension (F1), loadings vary between 0.42 and 0.90. For the ‘Belief’ subdimension (F2), the range is 0.50 to 0.85; for the ‘Mystical’ subdimension (F3), it is 0.44 to 0.80; for the ‘Personal’ subdimension (F4), 0.76 to 0.89; and for the ‘Transcendence’ subdimension (F5), 0.60 to 0.65. These factor loadings robustly reflect the extent to which items correlate with their respective underlying constructs.

The obtained factor loadings and CFA fit indices comply with the criteria indicating that the model provides an excellent or acceptable fit. According to the fit

index evaluation criteria in the literature (Kline, 2005; Schumacker & Lomax, 2010; Sümer, 2000; Schermelleh-Engel et al., 2003; Hu & Bentler, 1999; Byrne, 2010), the Turkish version of the DSI is psychometrically reliable and valid.

Criterion Validity

To examine the criterion-related validity of the Dimensions of Spirituality Inventory, two subdimensions of the Mysticism Scale (MES2 and MES5), which are the “informational religious quality factor that leaves a positive impression” and the “sense of divine perfection factor”, two subdimensions of the Spirituality Scale, namely, “Spiritual Coping” and “Search for Meaning” (SSC and SSM); two subdimensions of the Spiritual Transcendence Scale, namely, “Universality” and “Satisfaction with Worship” (STSU and STSS); and the Intrinsic Spirituality Scale (ISS), were utilized. The correlation values between the scores obtained from the scales are presented in Table 4.

Table 4 shows that the “Belief and Belonging” dimension of the Spirituality Dimensions Inventory’s “Belief and Belonging” dimension is positively correlated with the subdimensions of the Mysticism Scale, namely, “the factor of informational religious quality that leaves a positive impression” and ($r=0.35$; $p<0.01$), the factor of sense of divine perfection” ($r=0.308$; $p<0.01$), “Spiritual Coping” ($r=0.61$; $p<0.01$) and “Search for Meaning” ($r=0.46$; $p<0.01$), which are the subdimensions of the Spirituality Scale; “Universality” ($r=0.50$; $p<0.01$) and “Satisfaction with Worship” ($r=0.50$; $p<0.01$) of the Spiritual Transcendence Scale.

The “Value Ideals” dimension is related to the subdimensions of the Mysticism Scale, namely, “the factor of informational religious quality that leaves a positive impression” ($r=0.49$; $p<0.01$) and “the factor of sense of divine perfection” ($r=0.453$; $p<0.01$); the subdimensions of the Spirituality Scale, namely, “Spiritual Coping” ($r=.59$; $p<0.01$) and “Search for Meaning” ($r=0.32$; $p<0.01$); “Universality”

Table 4 Correlation analysis results between scales

| | M | SD | MES2 | MES5 | SSC | SSM | ISS | STSU | STSS |
|----------------------|-------|------|--------|--------|--------|--------|-------|--------|--------|
| M | | | 17.91 | 7.27 | 21.13 | 18.53 | 45.97 | 34.37 | 33.20 |
| SD | | | 4.72 | 1.51 | 2.43 | 1.74 | 16.80 | 3.93 | 4.00 |
| Belief and belonging | 22.73 | 3.21 | .352** | .308** | .617** | .463** | .136 | .509** | .507** |
| Value ideals | 52.76 | 6.68 | .497** | .453** | .594** | .328** | .272* | .569** | .503** |
| Mystical | 39.69 | 4.96 | .268* | .291* | .705** | .406** | .266* | .466** | .373** |
| Personal | 56.76 | 6.61 | .415** | .422** | .809** | .594** | .304* | .611** | .619** |
| Transcendent beings | 19.49 | 6.62 | .397** | .468** | .466** | .475** | .136 | .375** | .306* |

MES2, Factor of informational religious quality leaving a positive impact, MES5, Sense of divine perfection factor, SSC, Spiritual Coping, SSM, The Search for Meaning, ISS, Intrinsic Spirituality Scale, STSU, Universality, STSS, Satisfaction with Worship

* $p<.05$, ** $p<.01$

($r=0.56$; $p<0.01$) and “Satisfaction with Worship” ($r=0.50$; $p<0.01$) of the Spiritual Transcendence Scale; and the overall Inner Spirituality Scale ($r=0.27$; $p<0.05$).

The “mystical” dimension is related to the subdimensions of the Mysticism Scale, namely, “the factor of informational religious quality that leaves a positive impression” ($r=0.26$; $p<0.05$) and “the factor of the sense of divine perfection” ($r=0.29$; $p<0.05$); the subdimensions of the Spirituality Scale, namely, “spiritual coping” ($r=.70$; $p<0.01$) and “Search for Meaning” ($r=0.40$; $p<0.01$); “Universality” ($r=0.46$; $p<0.01$) and “Satisfaction with Worship” ($r=0.37$; $p<0.01$) of the Spiritual Transcendence Scale; and the overall Inner Spirituality Scale ($r=0.26$; $p<0.05$).

The “Personal” dimension is related to the subdimensions of the Mysticism Scale, namely, “the factor of informational religious quality that leaves a positive impact” ($r=0.41$; $p<0.01$) and “the factor of the sense of divine perfection” ($r=0.42$; $p<0.01$); the subdimensions of the Spirituality Scale, namely, “Spiritual Coping” ($r=.80$; $p<0.01$) and “Search for Meaning” ($r=0.59$; $p<0.01$); “Universality” ($r=0.61$; $p<0.01$) and “Satisfaction with Worship” ($r=0.61$; $p<0.01$) of the Spiritual Transcendence Scale; and the overall Inner Spirituality Scale ($r=0.30$; $p<0.05$).

The “Transcendent Beings” dimension, on the other hand, has a positive effect on the subdimensions of the Mysticism Scale, namely, the “informational religious quality factor that leaves a positive impression” ($r=0.39$; $p<0.01$) and the “sense of divine perfection factor” ($r=0.46$; $p<0.01$); the subdimensions of the Spirituality Scale, namely, “Spiritual Coping” ($r=.46$; $p<0.01$), “Search for Meaning” ($r=0.47$; $p<0.01$), “Universality” ($r=0.37$; $p<0.01$) and “Satisfaction with Worship” ($r=0.30$; $p<0.05$) of the Spiritual Transcendence Scale.

Reliability

Test–retest reliability analysis was conducted in the scope of reliability studies. To evaluate the consistency of the Turkish version of the DSI over time, the Turkish version of the DSI was administered to a group of 49 participants at two-week intervals. The mean scores, standard deviations and *t*-test results obtained between the first and second administrations revealed consistently high levels of reliability, with Pearson correlation coefficients ranging from 0.35 to 0.78 for the various dimensions of the inventory. In particular, the correlations observed for the Personal and Transcendent dimensions suggest that these dimensions of the inventory are quite stable over time. The findings of the test–retest analysis are presented in Table 5. In addition to the test–retest reliability, Cronbach’s alpha values were calculated. Cronbach’s alpha values of Personal, Value, Mystical, Belief, and Transcendence dimensions were found to be 0.83, 0.76, 0.69, 0.55, and 0.24 respectively. The overall inventory exhibited a Cronbach’s alpha of 0.90.

Discussion

This study aimed to adapt the Dimensions of Spirituality Inventory (DSI) scale, developed by Wildman et al. (2024), to Turkish to measure spirituality through five subdimensions and 50 questions. The translation process involved 30 experts in

Table 5 The dimensions of spirituality inventory—Turkish form test–retest reliability

| Scale | Application | X | SD | t | sd | p | r |
|--------------|-------------|--------|-------|-------|----|------|-------|
| Value | Pretest | 54.75 | 6.00 | -.026 | 48 | .000 | .62** |
| | Posttest | 54.77 | 6.46 | | | | |
| Belief | Pretest | 23.71 | 3.60 | -.350 | 48 | .012 | .35* |
| | Posttest | 23.91 | 3.58 | | | | |
| Mystical | Pretest | 40.51 | 4.62 | -.483 | 48 | .000 | .65** |
| | Posttest | 40.79 | 5.23 | | | | |
| Personal | Pretest | 59.22 | 6.50 | 2.102 | 48 | .000 | .68** |
| | Posttest | 57.71 | 6.01 | | | | |
| Transcendent | Pretest | 22.95 | 3.22 | .243 | 48 | .000 | .78** |
| | Posttest | 22.87 | 3.73 | | | | |
| DSI Total | Pretest | 201.16 | 18.19 | .547 | 48 | .000 | .74** |
| | Posttest | 200.08 | 20.30 | | | | |

* $p < .05$, ** $p < .001$

English and Turkish, followed by back-translation process. The final Turkish version underwent validity and reliability testing. CFA confirmed the five dimensions of the original scale, Cronbach's alpha was calculated as 0.90, suggesting high reliability. Only the reliability of the Transcendence dimension was found to be low ($\alpha = 0.24$). In the analyses conducted to examine the reasons; it was determined that the reliability would increase by removing the Dead Active items in this dimension ($\alpha = 0.56$). Since the comprehensibility of the items was not found to be problematic in linguistic analysis studies, it was decided to keep the items in the scale in order not to disrupt the integrity of the scale.

The criterion validity study examined the relationship between the DSI and other spirituality scales, such as the Mysticism Scale, Spirituality Scale, Intrinsic Spirituality Scale, and Spiritual Transcendence Scale. Positive correlations supported the theoretical framework, indicating that the Turkish DSI effectively measures the subdimensions of spirituality. Traditional research has focused primarily on religion or religiosity, with spirituality used to describe both mystical and nonreligious practices (Pargament, 2023). These findings affirm that spirituality can be measured multi-dimensionally.

Challenges in Measuring Spirituality

One significant challenge in measuring spirituality is determining whether it should be conceptualized as a singular construct or a multidimensional phenomenon. Research indicates that spirituality is not perceived as a universal truth (Ammerman, 2013; Eisenmann et al., 2016; Steensland et al., 2018; Zinnbauer et al., 1997). Various definitions and tools for measuring spirituality exist. For instance, Elkins et al. (1988) concluded that spirituality is a multidimensional structure consisting of nine components. The Spiritual Orientation Inventory (SOI), similar to the DSI, includes subdimensions such as the Transcendent dimension and Meaning and Purpose in Life, which correspond to the Transcendent Beings and Personal

subdimensions of the DSI. Many studies that view spirituality as independent of religion and religiosity use the SOI to measure humanistic spirituality, which focuses on individual experiences and personal growth without reference to religious doctrines or institutions (Lazar, 2021).

Nevertheless, scales based on religiosity and religion have also been designed. Given that there are approximately 2 billion Muslims in the world, there has been a concerted effort to create measurement tools that comprehensively represent the affective (attitudes), cognitive (beliefs), and behavioral (practices) aspects of religiosity. One notable example is the Psychological Measure of Islamic Religiousness (PMIR) scale (Abu-Raiya et al., 2008). Unlike many scales designed for specific ethnic or national Muslim populations, the PMIR scale has been employed in research samples across various cross-cultural settings, demonstrating its broader applicability (Amer, 2021). The adaptation and validation of the DSI scale for a Muslim population and its translation into Turkish are significant within the context of the literature, as these efforts enhance the relevance of spirituality measures across different Muslim cultural settings.

Spirituality and Mental Health Counseling

The significance of spirituality in addressing mental health challenges has been increasingly recognized. Since most individuals possess some level of religious or spiritual (RS) values, beliefs, or practices that are shaped by their diverse backgrounds, experiences, and identities—and these RS factors can impact their mental health either as a source of strength or challenge—it is essential for mental health professionals to gain a deeper understanding of how clients perceive the integration of RS in their treatment by their providers (Oxhandler et al., 2024). Coppola et al. (2021), during the COVID-19 pandemic, highlighted the connection between spiritual practices and psychological well-being. Research by Karki et al. (2024) explored the relationship between spirituality and mental health across different cultural contexts, including Turkey. Their findings suggest that spirituality and religiosity are linked to reduced symptoms of depression and enhanced life satisfaction. These correlations imply that spiritual beliefs and practices may serve as valuable resources for coping with depressive symptoms and improving overall emotional well-being.

With this adaptation of the DSI scale, it is possible to define and measure spirituality on a national basis in Turkey. This study will support academic and practical studies in psychological counseling, particularly in spirituality. Many scientific studies on spirituality and religiosity have been conducted worldwide, especially in the last 20 years. The role of spirituality in psychological counseling and psychotherapy has gained attention (Shafranske, 2024; Şahin & Okan, 2024). Data from English-speaking Muslims highlight the need to integrate religious and spiritual dimensions into psychological counseling frameworks. According to research conducted by Umarji and Islam (2024), intolerance to uncertainty is identified as the predominant predictor of psychological distress, particularly associated with conditions such as anxiety and depression. In contrast, religiosity is recognized as the most influential predictor of positive psychological outcomes,

such as life satisfaction, well-being, and a sense of purpose. Furthermore, religious doubts are found to significantly impact multiple mental health outcomes.

This complexity underlines the necessity of quantifying religiosity to fully comprehend its effects on mental health. With increasing interest in spirituality and mental health, the use of spirituality in the psychological counseling process is beneficial for some clients (Captari et al., 2018; Okan et al., 2024; Post & Wade, 2009). In clients with strong religious and spiritual commitment and engagement in psychological counseling and psychotherapy, therapies focusing on religious and spiritual issues are more effective than those without a religious or spiritual orientation (Bouwhuis-Van Keulen et al., 2024).

Implicitly or explicitly, spiritual issues are often brought into therapy. Spirituality can be experienced in listening to music, the smile of a stranger, the color of the sky, or gratitude for waking up each day. Conversely, spirituality can also be felt in moments of loss, questioning life's purpose, feeling abandoned, or facing injustice (Pargament, 2011). The items “contemplating beautiful art or music is profoundly spiritually moving and deeply spiritual for me” from the “Appreciating Beauty” subdimension of the DSI are indicative of valid structural features in understanding spirituality (Wildman et al., 2024). However, counselors or therapists may be unaware of other dimensions of spirituality contributing to the therapeutic process, often due to a lack of preparedness to discuss spirituality with clients. Studies indicate that mental health professionals often have incomplete knowledge about the distinctions and commonalities between “religion,” “religiosity,” and “spirituality” (Da Cunha et al., 2024; Okan & Şahin, 2024). This lack of clarity can result in spirituality being neglected or rarely addressed in therapy sessions, impacting session effectiveness, client rapport, and therapist behavior.

Increasing numbers of people in the West identify as “spiritual but not religious,” emphasizing the need to understand cultural and geographical influences on health outcomes related to spirituality. This necessitates considering area-level religious constructs, such as affiliations and community structures, to establish causal relationships between spirituality and health. Additionally, investigating the impact of religiosity and spirituality on psychological health using contemporary scales is crucial (Ransome, 2020). There is a consensus among mental health professionals on the need for training programs to enhance religious/spiritual (R/S) competencies. Vieten et al. (2023) found that most practitioners support the inclusion of competencies to address religious and spiritual struggles and help clients access their R/S strengths. However, one-fifth reported discomfort with these competencies in their professional development. Understanding the subdimensions of spirituality and utilizing the DSI can enhance the effectiveness of psychological counseling sessions. Along with this, effective training in religious and spiritual (RS) integration is essential for mental health professionals to avoid potentially harmful practices and ensure respectful, client-centered care. Common harmful practices include a lack of openness to the client's RS, imposing their own RS beliefs. Additionally, therapists may exhibit bias against or completely avoid addressing RS, leaving clients feeling disregarded or misunderstood (Oxhandler et al., 2024). Therefore, understanding the subdimensions of spirituality and utilizing the DSI can enhance the effectiveness of psychological counseling sessions. By also increasing spirituality awareness,

negative outcomes on both the counselor and client sides can be reduced. This study aimed to assess the suitability of these dimensions within Turkish culture and provide an inventory for mental health professionals to use in their practice.

Limitations

There may be a risk of contamination in scales that aim to measure spirituality and religion. As highlighted by Koenig and Carey (2024, 2025) and Bambling (2025), contamination occurs when scales ostensibly measuring religious or spiritual constructs also include items indicative of mental or social health (e.g., meaning, peace, social connectivity). This overlap can lead to tautological associations and artificially inflated correlations, thus reducing the clarity and validity of the findings. In our adapted measure, while the subscale names might initially suggest a contamination risk, item-level analysis indicates they were designed to capture spiritual dimensions directly rather than overall well-being or social connectedness. Nonetheless, researchers should remain mindful of potential contamination and consider the preventative strategies outlined by Koenig and Carey (2025) in future applications.

One of the limitations of this study is the relatively high number of items (53 items in total), which may seem lengthy and time-consuming to participants. An extensive item set may lead to participant fatigue and reduced engagement, affecting the overall quality and generalizability of the data. Future research could consider developing and validating a shorter version of the scale to maintain psychometric rigor while increasing applicability and participant agreement.

Test–retest analyses indicate that the overall scale meets the reliability standard of 0.70 or above, and that most subscales similarly exhibit sufficient test–retest correlations. However, the correlations for the Belief subscale (0.35) and, to some extent, the Value subscale (0.62) falling below 0.70 suggest relatively weaker temporal stability in these dimensions. Additionally, factors such as participants' recall of previous responses, the relatively short interval between test administrations, and the limited nature of the sample may have influenced the reliability coefficients obtained. Therefore, it is recommended that these findings be replicated over longer time intervals and with different samples to further establish their robustness.

In this study, data collection was designed to minimize biases, but it is challenging to capture all facets of spirituality due to its personal nature. The scale may not thoroughly reflect participants' perceptions of spirituality. Since this instrument

measures various aspects of spirituality, some of the less common specific sub-dimensions (e.g. Dead Active) may not have appealed to the current study group. These dimensions are thought to provide valuable data in some areas of Turkey that this study could not include. CFA was used to validate the subdimensions of spirituality, consistent with the methodologies used by the developers of the scale. However, reapplication of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) is necessary to address cultural suitability and unexpected structural findings.

Future Research

Further research is needed to investigate the effectiveness of individual DSI scale items and to create culturally valid item groupings, especially for samples from Islamic traditions. Identifying cultural equivalents for certain subdimensions presents notable challenges. Future studies should explore the relationship between the Turkish form of the DSI and various positive psychology concepts and psychopathological conditions. The development of practical guidelines for mental health professionals to incorporate spirituality and religion into their practice is recommended. This may lead to research on the benefits of religious or spiritual activities as coping strategies.

Conclusion

Our evidence supports the psychometric validity of the DSI-Turkish form in a heterogeneous group of Turkish participants. Future research is recommended to confirm our findings and to identify the extent of spiritual needs in individuals who prioritize spiritual well-being. This study's findings highlight the necessity for culturally sensitive tools to capture the diverse expressions of spirituality across different cultural settings. This contribution is expected to enhance both academic and practical applications in the field of psychological counseling in Turkey, particularly concerning spirituality.

Appendix 1

See Table 6.

Table 6 Items of the dimensions of spirituality inventory (Wildman et al., 2024)

| Item code | Item statement (EN-TR) | Subdimensions | Main dimensions |
|-----------|---|-------------------------|-----------------|
| m1 | Usually, when I feel most spiritually alert, I am also intensely aware of my body. (<i>Manevî olarak aktif olduğum zamanlarda—meditasyon uygulamaları gibi—genellikle bedenimin de yoğun bir şekilde farkında olurum.</i>) | Kinesthetic/kinæsthetic | Value ideals |
| m49 | My spirituality involves striving to maintain continual awareness of my body while performing my daily activities. (<i>Maneviyatımı, günlük işlerimi yaparken, bedenim üzerinde daimî bir farkındalıkla koruma çabasıdır.</i>) | Kinesthetic/kinæsthetic | |
| m16 | Contemplating beautiful art or music is profoundly spiritually moving for me. (<i>Benim için sanatteki veya müzikteki güzelliği derinlemesine deneyimlemek son derece manevîdir.</i>) | Appreciating beauty | |
| m48 | Intense experiences of beauty in art or music are deeply spiritual for me. (<i>Cıziel bir sanat eseri ya da müzik üzerine refleksler etme/düşünme beni manevî anlamda derinden etkiler.</i>) | Appreciating beauty | |
| m14 | My spirituality draws me toward beautiful art and music. (<i>Maneviyatım beni güzel olan sanat eserlerine ve müziğe çeker.</i>) | Appreciating beauty | |
| m34 | When I am not spiritually attuned, I fail to appreciate the value of the people and things around me. (<i>Manevî insicamlı/uyum yakalamadığımda, etrafımdaki insanlar ve diğer şeylerin kıymetini takdir etmekte başarısız olurum.</i>) | Axiological sensitivity | |
| m29 | My appreciation for people and things around me rises and falls with my spiritual vitality. (<i>Etrafımdaki insanların ve diğer şeylerin kıymetine olan takdirim, manevî şevkimle/ canlılığımla birlikte artar veya azalır.</i>) | Axiological sensitivity | |
| m13 | My spirituality increases my gratitude for the people and things in my life. (<i>Maneviyatım, hayatımdaki insanlara ve diğer şeylere duyduğum şükranı artırır.</i>) | Axiological sensitivity | |
| m35 | When I am spiritually attuned, I find it easier and more natural to be an ethical person. (<i>Manevî insicamlı/uyum yakalamadığımda, etik bir insan olmak daha kolay ve doğal gelir.</i>) | Ethical growth | |
| m41 | Due to spiritual insights, I have adopted ethical standards for myself that are higher than those I previously adhered to. (<i>Manevî içgörüler/farkındalıklar sayesinde, kendim için daha önce bağlı olduğumdan daha yüksek ahlaki ilkeler benimsenmiş oldum.</i>) | Ethical growth | |
| m51 | My spirituality makes me a better person. (<i>Maneviyatım beni daha iyi bir insan yapıyor.</i>) | Ethical growth | |
| m17 | My spirituality increases my desire for intellectual understanding. (<i>Maneviyatım, emelektüel kavrayışa olan arzumu artırır.</i>) | Truth seeking | |
| m33 | Pursuing intellectual understanding is a central part of my spirituality. (<i>Entelektüel kavrayışın peşinde olmak maneviyatımın merkezi bir parçasıdır.</i>) | Truth seeking | |
| m44 | Pursuing intellectual understanding is not central to my spirituality. (<i>Entelektüel kavrayışın peşinde olmak maneviyatımın merkezi bir parçası değildir.</i>) | Truth seeking | |
| m32 | Most of my deepest personal relationships have been formed in spiritual communities. (<i>En samimi kişisel ilişkilerimin çoğu, manevî topluluklarda kurulmuştur.</i>) | Connection | Personal |

Table 6 (continued)

| Item code | Item statement (EN-TR) | Subdimensions | Main dimensions |
|-----------|--|---------------------|---------------------|
| m42 | Connection to my spiritual community is essential to my spiritual fulfillment. <i>(Manevî topluluğuma olan aidiyetim, manevî doyumunda esastır.)</i> | Connection | Connection |
| m38 | Connection to my spiritual community is not essential to my spiritual fulfillment. <i>(Manevî topluluğuma olan aidiyetim manevî doyumunda esas değildir.)</i> | Connection | Connection |
| m7 | My spirituality provides the deepest meaning and purpose in my life. <i>(Maneviyatım hayatımdaki en yüce anlam ve amacı sağlar.)</i> | Meaning | Meaning |
| m36 | My spirituality gives my life a clear sense of meaning and direction. <i>(Maneviyatım hayatama açık/net bir anlam ve istikamet katar.)</i> | Meaning | Meaning |
| m43 | My spirituality helps me to accept change, even when change is painful. <i>(Maneviyatım, acı verici olsa bile değişimi kabul etmeme yardımcı olur.)</i> | Nonattachment | Nonattachment |
| m27 | Accepting change, even when it is difficult, is vital to my spirituality. <i>(Zor olsa bile değişimi kabul etmek, maneviyatım için hayati önem taşır.)</i> | Nonattachment | Nonattachment |
| m37 | Accepting change, even when it is difficult, is not central to my spirituality. <i>(Zor olsa bile değişimi kabul etmek, maneviyatımın merkezinde yer almaz.)</i> | Nonattachment | Nonattachment |
| m6 | Making habits out of spiritual disciplines such as meditation, prayer, study, or self-reflection is the key to my spiritual development. <i>(Meditasyon, dua veya kendi üzerine düşünme / nefis muhasebesi gibi manevî disiplinlerden alışkanlıklar edinmek manevî gelişiminin anahtarıdır.)</i> | Practices | Practices |
| m40 | Personal practices such as meditation, prayer, study, or self-reflection are absolutely necessary for my spiritual life. <i>(Meditasyon, dua, kendi üzerine düşünme / nefis muhasebesi gibi kişisel uygulamalar, manevî hayatım için gereklidir.)</i> | Practices | Practices |
| m10 | Finding my true self is the key to spiritual fulfillment. <i>(Gerçek benliği bulmak, manevî doyuma ulaşmanın anahtarıdır.)</i> | Self-discovery | Self-discovery |
| m12 | My spirituality focuses on discovering my truest, deepest self. <i>(Maneviyatım, benliğimin en hakiki, en derin halini keşfetmeyeyi hedefler.)</i> | Self-discovery | Self-discovery |
| m45 | My spirituality helps change my behavior for the better. <i>(Maneviyatım, davranışlarımı daha iyi yönde değiştirmeme yardımcı eder.)</i> | Self-transformation | Self-transformation |

Table 6 (continued)

| Item code | Item statement (EN-TR) | Subdimensions | Main dimensions |
|-----------|---|---------------------|----------------------|
| m20 | Due to my spirituality, I have been transformed into a better person. (<i>Maneviyatım sayesinde daha iyi bir insana dönüştüm.</i>) | Self-transformation | |
| m39 | My life would be much harder without spiritual beliefs that guide me. (<i>Bana rehberlik eden manevî inançlarım olmasaydı hayatım çok daha zor olurdu.</i>) | Belief | Belief and belonging |
| m53 | I need core spiritual beliefs if my life is to have structure and direction. (<i>Hayatımda düzen ve istikamet için temel manevî inançlara ihtiyac duyuyorum.</i>) | Belief | |
| m50 | Traditional rituals enhance my spiritual life in profound and powerful ways. (<i>Geleneksel ritüeller/fâdetler manevî yaşamım derin ve güçlü bir şekilde artırır.</i>) | Ritual | |
| m46 | Traditional rituals hinder my spiritual life more than they help it. (<i>Geleneksel ritüeller/fâdetler manevî hayatımı desteklemekten ziyade engeller.</i>) | Ritual | |
| m47 | My religious tradition guides my spiritual journey. (<i>Đinî gelenegim manevî serüvenime rehberlik eder.</i>) | Religious tradition | |
| m23 | My spirituality and my religious tradition are intertwined. (<i>Maneviyatım ve dinî gelenegim iç içe geçmiştir.</i>) | Religious tradition | |
| m31 | Awe before the overwhelming immensity of cosmic reality is spiritually vital for me. (Kâinatın insanı hayrete düşüren sonsuzluğu karşısında huşu duymak benim için manevî açılan hayattı önem taşır.) | Awe | Mysticism |
| m3 | Hayatımı, kâinatın sonsuz okyanusunda tek bir su damlası olarak düşünmek beni hayret duygusuyla doldurur. (Picturing my life as (continued) a single drop of water in the endless ocean of cosmic reality fills me with a sense of wonder.) | Awe | |
| m8 | Contemplating the awesome vastness of the cosmos is spiritually energizing to me. (Evrenin muazzam genişliğini telekkür etmek/düşünmek manevî şevkimı artırır.) | Awe | |
| m4 | The deepest spiritual questions are too mysterious for human beings to answer. (<i>En derin manevî sorular insanlığın yanıtlayamayacağı kadar gizemlidir.</i>) | Mystery | |
| m11 | No human being can answer all of the spiritual questions that matter to us. (<i>Hiçbir insan, bizim için önem taşıyan manevî soruların tümüne cevap veremez.</i>) | Mystery | |
| m9 | My spirituality increases my sense that reality is fundamentally mysterious. (<i>Maneviyatım, gerçekteğin özünde gizemli olduğuna dair hissiyatımı artırır.</i>) | Mystery | |
| m30 | My spirituality involves a growing sense of being one with all things. (<i>Maneviyatım, her şeyle bir olma duygusunun giderek artmasını içerir.</i>) | Oneness-unity | |
| m18 | My spirituality gives me a feeling of unity with all of reality. (<i>Maneviyatım bana bütünlü gerçektekle bir olma duygusu verir.</i>) | Oneness-unity | |

Table 6 (continued)

| Item code | Item statement (EN-TR) | Subdimensions | Main dimensions |
|-----------|--|-------------------------------|---------------------|
| m19 | My spirituality involves potent experiences of transcendence. (<i>Maneviyatım güçlü aşkınlık deneyimleri içerir.</i>) | Oneness-transcendence | Transcendent beings |
| m25 | My spirituality does not involve potent experiences of transcendence. (<i>Maneviyatım güçlü aşkınlık deneyimlerini içermez.</i>) | Oneness-transcendence | |
| m15 | I believe we are immersed in a realm of unseen spiritual powers, both good and bad. (<i>Gözle görünmeyen hem iyi hem de kötü ruhları olduğuna inanıyorum.</i>) | Spiritual beings | Transcendent beings |
| m28 | In order to make sense of the world, I need to recognize the power of both good and evil spirits. (<i>Dünyayı anlamlandırmak için hem iyi hem de kötü ruhların gücünü kabul etmem gerekir.</i>) | Spiritual beings | |
| m52 | My spirituality is perfectly meaningful without any Divine being. (<i>Herhangi bir ilahî varlık olmadan da maneviyatım son derece anlamlıdır.</i>) | Divine beings | Transcendent beings |
| m26 | My spiritual experiences tend to involve sensing the presence of the Divine. (<i>Manevî deneyimlerimin çoğunda İlahî olanın huzurunda bulunduğumu hissedirim.</i>) | Divine beings | |
| m24 | I believe the dead are not gone but directly influence the living. (<i>Ölülerin bu dünyadan girmediklerine ve yaşayanlara doğrudan etki edebildiklerine inanıyorum.</i>) | Dead active | Transcendent beings |
| m22 | I believe the dead are gone and have no direct influence on the living. (<i>Ölülerin bu dünyadan gittiğine ve yaşayanlara doğrudan bir etkilerinin olmadığını inanıyorum.</i>) | Dead active | |
| m2 | Under ordinary circumstances, and all things being equal, rich people should be considered spiritually superior to poor people. (<i>Diğer tüm şartların aynı olduğu varsayılırsa, zengin insanlar fakir insanlardan manevî anlamda üstün sayılmalıdır.</i>) | Control and calibration items | Transcendent beings |
| m5 | Under ordinary circumstances, and all things being equal, it is better to be kind than cruel. (<i>Diğer tüm şartların aynı olduğu varsayılırsa, eşfıatli olmak şiddetli olmaktan daha iyidir.</i>) | Control and calibration items | |
| m21 | Under ordinary circumstances, and all things being equal, physically attractive people should be considered spiritually superior to unattractive people. (<i>Diğer tüm şartların aynı olduğu varsayılırsa, bedenen güzel insanların, güzel olmayan insanlardan manevî olarak üstün olduğu düşünülmelidir.</i>) | Control and calibration items | Transcendent beings |
| | | | |

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Statement on Replication Because of ethical considerations and Institutional Review Board constraints, the data used in this study will not be made available. This study is not a direct replication of a previously published empirical investigation in terms of data collection or findings. However, it involves the cross-cultural adaptation and validation of a psychological instrument originally developed by Wildman et al. (2024). The primary aim is to examine the psychometric properties of the original scale within a Turkish sample and assess its linguistic and cultural appropriateness. Therefore, although grounded in the theoretical and methodological foundations of the original work, this study does not constitute a direct replication.

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Declarations

Conflict of interests The authors have no relevant financial or non-financial interests to disclose.

Ethical Approval This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of University B (Date: 02/14/2024/No: 737999).

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

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