



# Childhood Maltreatment and Spiritual Well-Being: Intolerance of Uncertainty and Emotion Regulation as Mediators in Turkish Sample

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## Abstract

Spiritual well-being is a phenomenon that enhances the quality of life and acts as a protective factor against stress and negative emotions. The purpose of this study was to investigate whether childhood psychological maltreatment is related to spiritual well-being and whether intolerance of uncertainty and emotion regulation serially mediate this relationship. The study sample comprised 330 participants aged between 18 and 55 years from 46 out of the 81 cities in Türkiye. The study participants completed the Psychological Maltreatment Questionnaire, Intolerance of Uncertainty Scale, Emotion Regulation Scale, and Spiritual Well-Being Scale, a scale derived from the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being that measures spiritual well-being by using the conceptualization of meaning and peace. The data obtained were analyzed using a two-step structural equation modeling approach, which indicated that childhood psychological maltreatment has an association with spiritual well-being, and this relationship is mediated by both intolerance of uncertainty and emotion regulation. The findings are discussed in the context of the literature on spiritual well-being.

**Keywords** Spiritual well-being · Childhood psychological maltreatment · Intolerance of uncertainty · Emotion regulation

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## Introduction

The term spirituality can have a range of meanings from traditional religion to supernatural belief systems. Spirituality may or may not be based on a religion (Muldoon & King, 1995). It may be understood as a concept related to religion, but it is certainly a broader concept than religion (Koenig, 2010; Moberg, 2010). Religion involves beliefs, practices, and responsibilities held among members of a religious group, while spirituality cuts across a spectrum—from nonbelief to belief—and does not require commitment to any moral codes, doctrines, or rituals (Koenig, 2004). Although spirituality and religion may be used interchangeably, these are two different notions. In spirituality, the main focus is the search for meaning, whereas in religion, the focus is the relationship with God (Arrey et al., 2016). Moreover, spirituality embraces relationships with family, society, nature, and others in a broader sense than religion (Puchalski et al., 2014). Spirituality involves the pursuit of meaning in life and connection to others, which leads to well-being and tranquility (Delgado, 2005).

Spiritual well-being is defined by the National Interfaith Coalition on Aging (1975) as being in a relationship with God, self, and society to create wholeness in oneself in order to achieve full acceptance and love of life. Spiritual well-being is characterized by meaning and purpose in life and its relation to God; it has two components: religious and existential spiritual well-being (Ellison, 1983). Furthermore, spiritual well-being is an impetus that provides meaning, stability, and a purpose to life for the individual through a connection to transcendent dimensions (Rovers & Kocum, 2010). Several studies have shown that spiritual well-being is positively related to quality of life (Cotton et al., 2000; Zare et al., 2019), mental health (Zare et al., 2019), and psychological adjustment (Park & Cho, 2017) and negatively related to anxiety and depression (Dunn & Shelton, 2007).

Spiritual well-being is different from mental health but is a contributing factor to increased mental health. Spirituality makes it easier than otherwise to define life experiences and cope with psychological problems by providing a framework (Jafari et al., 2010). Previous studies have revealed that spiritual well-being is predictive of happiness and psychological well-being and reduces stress (Rowold, 2011). There are other predictors that may affect spiritual well-being, including child maltreatment. Ellison proposed that an individual's past with his or her family significantly impacts their subsequent spiritual satisfaction (Ellison, 1983). This may be because the family is the first place in which an individual encounters and experiences spirituality. If an individual's first encounter with a specific spiritual entity is unpleasant, it might be hard to recover that relationship later in life, thus causing decreased spirituality. Another reason might be that spirituality is something learned from the individual's surroundings, such as family and community, and if a family neglects their children, they cannot guide them in spirituality.

Psychological maltreatment refers to a set of repeated behaviors by caretakers that impair children's basic psychological needs from being met and makes the child feel unloved, worthless, and defective. It takes several forms, such as

spurning, terrorizing, exploiting, isolating, neglecting, and being emotionally unresponsive (American Professional Society on the Abuse of Children [APSAC], 2019). Childhood psychological maltreatment is a concept that contains a duality: the elements of neglect and abuse (Baker & Festinger, 2011), and it comprises both emotional and cognitive aspects of maltreatment (Guler, 2022).

Childhood maltreatment may affect an individual's spirituality in various ways during and after the abuse (Walker et al., 2009). Galea (2008) reported that psychological maltreatment has a negative impact on the spirituality of university students. In another set of studies, the researchers found that psychological maltreatment is directly predictive of spiritual well-being, such that high levels of maltreatment cause low levels of spiritual well-being in Turkish university students (Arslan, 2021a, 2021b) and in the general population (Feinauer, 2003; Zhang et al., 2015). People with a history of maltreatment not only experience emotional, physical, and psychological developmental drawbacks but also experience low levels of well-being in almost every area of their lives (Arslan, 2021a, 2021b). Furthermore, individuals may be less likely to engage in spiritual acts or behaviors when they have been maltreated in the past.

The effect of maltreatment can manifest as alienation from religion (Lawson et al., 1998), for which there are several explanations. First, maltreatment has an overall alienating effect that reveals itself in the affected individual's relationships with other people, institutions, and God; religion may be perceived as a source of stigmatization for victims, and they may perceive the authority figures who abused them as malevolent—and God is also an authority figure (Finkelhor et al., 1989). Thus, because the abuser appears to be an authority figure, the maltreatment may exacerbate the victim's relationships with other authority figures, including God. A study conducted by Hall (1995) demonstrated that spiritual functioning is lower in adult women who were sexually abused as children than in their peers who did not experience sexual abuse as children, and the impact affects three elements: the belief that one is unconditionally loved and accepted by God; recognizing God's leadership in life and trusting his purpose; and the sense of belonging to a community, whether religious or non-religious.

People who have had an abusive experience in their childhood may not feel that they are loved by God, which may be the reason behind the lowering of their spirituality. In addition, they may not attend religious events if they do not feel loved by God. Furthermore, sexual abuse has been found to be related to low existential well-being, which is an element of spiritual well-being (Feinauer, 2003), and it has been found that victims perceive God as punitive and distant (Pritt, 1998). It has also been found that victims were more likely to not practice religion (Finkelhor et al., 1989). In addition, emotional and physical abuse have been found to be negatively correlated with having religious beliefs (Webb & Whitmer, 2001). Therefore, maltreatment may be predictive of spiritual well-being. Other variables may also affect spiritual well-being, such as intolerance of uncertainty and emotion regulation.

## Intolerance of uncertainty and emotion regulation as mediators

Intolerance of uncertainty is defined as intolerance to the idea that negative events may occur in the future and that there is no definite way to protect oneself (Carleton et al., 2007a); it is a cognitive, emotional, and behavioral reaction to the uncertainties of daily life (Freeston et al., 1994). Furthermore, intolerance of uncertainty refers to a characteristic where there is an excessive emphasis on predictability and a susceptibility to feeling overwhelmed by unforeseen or unfamiliar circumstances (Birrell et al., 2011). An uncertain situation is considered a threat regardless of the improbability of its occurrence (Carleton et al., 2007b). Intolerance of uncertainty is the most prominent cause of worry (Buhr & Dugas, 2006) and is a risk factor for clinical anxiety disorders (Carleton, 2012). Childhood psychological abuse has been found to be associated with anxiety (Ferguson & Dacey, 1997). Because the incidence of childhood maltreatment is also unpredictable, it may contribute to intolerance of uncertainty (Soenke et al., 2010).

Some cross-sectional studies have shown that childhood maltreatment and early adversity may increase intolerance of uncertainty. For example, Ghaderi et al. (2020), with their structural equation modeling, showed that maltreatment has a significant association with intolerance of uncertainty in high school students. In addition, Hayward et al. (2020) reported that early adversities are predictive of an individual's intolerance of uncertainty. However, high levels of intolerance of uncertainty may negatively impact spiritual well-being. Sahin et al. (2023) demonstrated a negative association between spiritual well-being and intolerance of uncertainty. There is also a relationship between being religious and having intolerance of uncertainty; this takes the form of trusting in a God who is powerful and knows what is best for you, and thus that which comes from God is good and there is no need to predict what will happen in the future, which eventually lowers intolerance of uncertainty (Rosmarin et al., 2011).

Emotion regulation refers to the tracking, evaluating, and accommodating of emotions, especially temporal and intense emotions (Thompson, 1991). During the process of emotion regulation, individuals can actively adjust their emotional responses so that they can increase, retain, or reduce positive or negative emotions (Kooze, 2009). Emotion regulation may occur consciously or unconsciously (McRae & Gross, 2020). Although personality and temperament have a strong effect on how we regulate our emotions, parental attachment also affects emotion regulation (Gresham & Gullone, 2012; Turliuc & Bujor, 2013). There are other determinants of emotion regulation, including childhood psychological maltreatment. Studies show that childhood maltreatment is predictive of emotion regulation (Shields & Cicchetti, 1998; Weissman et al., 2019), and individuals who were not victims of childhood maltreatment exhibit greater emotion regulation than victims (Burns et al., 2010). In a three-year longitudinal study, Kim-Spoon et al. (2013) found that maltreatment that induced emotion lability/negativity at the age of seven was predictive of emotion dysregulation at age eight and contributed to an increased internalization of symptoms. Another longitudinal study, which used structural modeling, showed that childhood maltreatment is associated with emotion dysregulation (Kim & Cicchetti, 2010).

Because there are patterns of frightening and unpredictable behaviors in families where children are maltreated, the parents cannot model and guide regulation and structure (Kim-Spoon et al., 2013). Furthermore, maltreatment is one of the most emotionally damaging experiences a child can go through. Exposure to these tough emotions for a long period during a very sensitive phase of life (i.e., childhood) may impede the proper development of emotion regulation. Thus, maltreatment may be a factor that impairs emotion regulation ability. Furthermore, impaired emotion regulation may negatively affect spiritual well-being. Lee et al. (2022) showed that individuals with high levels of spirituality exhibit high levels of emotion regulation. Because emotion regulation is a cognitive process, it requires some degree of cognitive development. The main requirement for spirituality is the ability to think in abstract concepts, which also has basics in cognitive developmental theories. Thus, it is understandable that these two concepts are related. In line with these theoretical findings and previous research data, this study investigated whether the relationship between childhood psychological maltreatment and spiritual well-being is serially mediated by intolerance of uncertainty and emotion regulation. The following hypotheses (H) were proposed:

**H1:** Intolerance of uncertainty mediates the relationship between childhood psychological maltreatment and spiritual well-being.

**H2:** Emotion regulation mediates the relationship between childhood psychological maltreatment and spiritual well-being.

**H3:** The association between childhood psychological maltreatment and spiritual well-being is serially mediated by intolerance of uncertainty and emotion regulation.

## Methods

### Participants and Procedure

For this study, 330 participants were recruited from 46 cities in Türkiye. The mean age of the participants was 25.65 years ( $SD=8.88$ , range = 18–55), with 90 (27.3%) males and 240 (72.7%) females. The majority of the participants were university students (83.3%), while the rest were primary school graduates (0.9%), high school graduates (7.0%), and individuals with a graduate degree (8.7%). Most of the participants (82.1%) were unemployed, and 17.9% were employed. Among the participants, 270 (81.8%) were single, and 60 (18.2%) were married. Participants stated their perceived socioeconomic status as low (18.8%), medium (72.1%), or high (9.1%). The demographic characteristics of the study participants are presented in Table 1.

Participants were recruited via a web-based questionnaire (Google Forms) and participated voluntarily. Participants were invited to take part in the research through announcements in classrooms, individual invitations, and social media posts. The sampling method used was convenience sampling, and the data were collected in January 2023. Participation was entirely voluntary, and no incentives or rewards were provided. Ethical approval for this study was obtained from the Yıldız Technical University Scientific Research and Ethical Review Board (REF: 20221201839). Before participating

**Table 1** Demographic characteristics of participants

Variable	Frequency	%
<i>Gender</i>		
Female	240	72.7
Male	90	27.3
<i>Educational status</i>		
Primary school	3	0.9
High school	23	7.0
University	275	83.3
Masters/Ph.D.	29	8.7
<i>Employment status</i>		
Employed	59	17.9
Unemployed	271	30.3
<i>Marital status</i>		
Single	270	81.8
Married	60	18.2
<i>Perceived socioeconomic status</i>		
Poor	62	18.8
Medium	238	72.1
Good	30	9.1

in the study, the participants were given an informed consent form to fill out, which informed them that they could withdraw from the study at any time. They were then asked to fill out questionnaires measuring psychological maltreatment, intolerance of uncertainty, emotion regulation, spiritual well-being, and demographics (age, gender, education level, economic status, etc.). Participants were required to complete all items on the questionnaire to ensure no missing data.

## Measures

### Psychological Maltreatment

The Psychological Maltreatment Questionnaire (PMQ; Arslan, 2015) was used to assess the childhood psychological maltreatment history of the participants. The PMQ is a 12-item questionnaire using a four-point Likert scale, with responses ranging from almost never (1) to almost always (4); higher scores indicate higher levels of psychological maltreatment. An example item on the PMQ is, “My parent would humiliate me in front of other people.” Previous studies using the PMQ have revealed a strong internal reliability coefficient ( $\alpha=0.88$ ) when administered to Turkish adults (Arslan, 2021a).

## Intolerance of Uncertainty

The Intolerance of Uncertainty Scale, developed by Carleton et al., (2007a, 2007b), was adapted to the Turkish setting (Sarıçam et al., 2014). It comprises 12 items (e.g., “Unexpected events bother me”) and uses a five-point Likert scale ranging from 1 (not suitable for me at all) to 5 (totally suitable for me). The scale measures two factors: prospective anxiety and inhibitory anxiety, and there are no reversed items. Higher scores on the two factors indicate a high intolerance of uncertainty. Confirmatory factor analysis results for this study are as follows:  $\chi^2 = 147.20$ , degrees of freedom ( $df$ ) = 48, root mean square error of approximation (RMSEA) = 0.073, comparative fit index (CFI) = 0.95, incremental fit index (IFI) = 0.95, goodness-of-fit index (GFI) = 0.94, and standardized root mean residual (SRMR) = 0.046. The Cronbach’s alpha for the scale is 0.88, for the prospective anxiety factor, 0.84, and for inhibitory anxiety, 0.77.

## Emotion Regulation

Emotion regulation was assessed using the Emotion Regulation Scale (ERQ; Gross & John, 2003). The ERQ is a 10-item questionnaire (e.g., “I control my emotions by changing the way I think about the situation I’m in”) using a seven-point Likert scale ranging from strongly disagree (1) to strongly agree (7). In this study, suppression—which is one of the two factors comprising emotion regulation in the questionnaire—was reverse-coded, such that higher scores indicate higher levels of emotion regulation. The Turkish version of the ERQ (Eldeleklioğlu & Eroğlu, 2015) was used, and it has shown good internal consistency ( $\alpha = 78$  for reappraisal and  $\alpha = 73$  for suppression) as well as a confirmed factor analysis:  $\chi^2/df = 1.94$ , CFI = 0.98, RMSEA = 0.046, and GFI = 0.99 (Eldeleklioğlu & Eroğlu, 2015).

## Spiritual Well-Being

The Spiritual Well-Being Scale was adapted from the Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-Sp-12), which is a questionnaire for evaluating the spiritual well-being of people with cancer or other chronic illnesses (Bredle et al., 2011), to assess spiritual well-being in Turkish populations (Arslan & Yıldırım, 2021). The Spiritual Well-Being Scale is a five-item questionnaire (e.g., “I have a reason to live”) using a five-point Likert scale ranging from 0 (*not at all*) to 4 (*very much*). It has one reversed item, and higher points indicate higher levels of spiritual well-being. It is a one-factor scale. The scale covers peacefulness, meaning, and purpose, which may cause overlap with mental health rather than being specific to spiritual well-being. Results from this analysis indicate a close data-model fit ( $\chi^2 = 7.15$ ,  $df = 5$ ,  $p = 0.21$ , CFI = 0.99, Tucker–Lewis index (TLI) = 0.99, RMSEA (95% CI) = 0.045 (0.00, 0.11),

SRMR = 0.025) characterized by strong factor loadings ( $\lambda$  range = 0.55–0.85) and a latent construct reliability estimate ( $H = 0.89$ ).

## Data Analysis

We tested the mediation of the association between psychological maltreatment and spiritual well-being by intolerance of uncertainty and emotion regulation using a two-step structural equation modeling approach. First, descriptive statistics (mean, standard deviation, skewness, and kurtosis) and Pearson correlations were computed for all variables. A measurement model was then performed, and finally, structural modeling was tested. We controlled for gender as a covariate. The goodness-of-fit of the models was evaluated using the  $\chi^2$  goodness-of-fit statistic, the GFI, the Adjusted Goodness-of-Fit Index (AGFI), the RMSEA, and CFI. All data analyses were conducted using the IBM Statistical Package for the Social Sciences (SPSS) version 22, JASP 0.11.1, and AMOS Graphics.

## Results

### Preliminary Analysis

Descriptive statistics, reliabilities, and Pearson's correlation coefficients of the study variables are presented in Table 2. The correlation analysis (Table 2) showed that spiritual well-being was negatively correlated with both psychological maltreatment and intolerance of uncertainty but positively correlated with emotion regulation. Psychological maltreatment was found to be positively correlated with intolerance of uncertainty and negatively correlated with emotion regulation.

### Structural Equation Modeling

First, we checked the assumptions. The normality assumption was examined with skewness and kurtosis values, and acceptable values were determined following George and Mallery's (2010) recommendations (Table 2). In addition,

**Table 2** Descriptive statistics and correlations

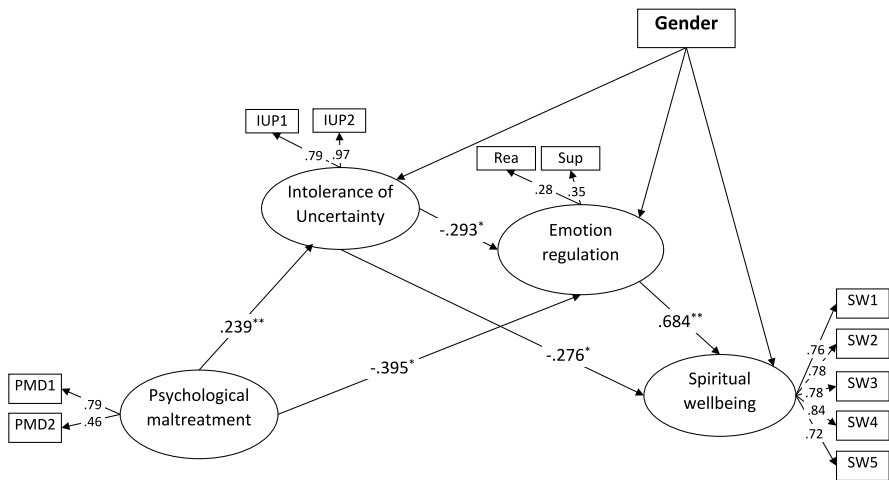
Variables	Descriptive statistics and reliabilities						Correlations		
	Mean	SD	Skewness	Kurtosis	$\alpha$	$\lambda_6$	1	2	3
1. Spiritual well-being	13.36	4.21	-.98	.818	.88	.87	–		
2. Psychological maltreatment	20.10	5.20	.82	.399	.83	.85	–0.27**	–	
3. Intolerance of uncertainty	37.75	7.94	-.07	-.324	.84	.86	–0.49**	0.18**	–
4. Emotion regulation	46.61	7.83	.13	.351	.70	.78	0.34**	–0.24**	–0.16**

$p < .01$



the reliability coefficients were found to be above the acceptable limit of 0.70. Multicollinearity was checked with variance-inflated factor (VIF), tolerance, and Durbin–Watson (DW) values. All tolerance values were above 0.10, and VIFs were lower than 10. The DW value was 1.53, indicating no significant association between the residuals. Lastly, we computed Harman’s single-factor score to investigate the common method variance (CMV). Harman’s single-factor score revealed that one factor explained less than the cut-off score of 50% (Mat Roni, 2014), indicating no significant CMV in this study. After meeting all assumptions, we initiated two-step structural equation modeling. The measurement model was examined first.

The measurement model comprised four latent variables—spiritual well-being, psychological maltreatment, intolerance of uncertainty, and emotion regulation—and 11 observed variables. The results of the measurement model demonstrate that the model has an acceptable fit with the data:  $\chi^2(38) = 57.43, p < 0.05$ ;  $\chi^2/df = 1.51$ ; GFI = 0.97; NFI = 0.06; CFI = 0.98; TLI = 0.97; RMSEA = 0.039 (90% CI 0.015–0.059); SRMR = 0.028. The factor loadings of the measurement model were between 0.48 and 0.97 ( $p < 0.01$ ). We then tested the serial mediation model using structural modeling. Gender was inputted into the model as a control variable. The model (Fig. 1) has good levels of model fit:  $\chi^2(47) = 78.01, p < 0.01$ ;  $\chi^2/df = 1.66$ ; GFI = 0.96; NFI = 0.95; CFI = 0.98; TLI = 0.97; RMSEA = 0.045 (90% CI 0.026–0.062); SRMR = 0.036. According to the paths among the latent factors, psychological maltreatment is associated with intolerance of uncertainty ( $\beta = 0.239, p < 0.05$ ) and emotion regulation ( $\beta = -0.395, p < 0.05$ ). Furthermore, intolerance of uncertainty ( $\beta = -0.276, p < 0.05$ ) and emotion regulation ( $\beta = 0.684, p < 0.05$ ) are associated with spiritual well-being. This model explains 64% of the variance in spiritual well-being.



**Fig. 1** Structural equation modeling for the serial mediation model. \*\* $p < .01$ , PMD: sub-dimension of psychological maltreatment, IUP: intolerance of uncertainty, Rea: Reappraisal, Sup: Suppression

## Discussion

Spiritual well-being is closely related to feelings of wholeness, transcendence, and overall quality of life, as well as being associated with happiness and finding meaning in life. It also serves as a protective factor against suicide and self-harm behaviors. The findings of this study suggest that both intolerance of uncertainty and emotion regulation play a sequential mediating role in the relationship between childhood psychological maltreatment and spiritual well-being.

### Intolerance of Uncertainty as a Mediating Factor

The link between maltreatment and intolerance of uncertainty found in this study supports the findings of Ghaderi et al. (2020), who demonstrated a significant direct impact of maltreatment on intolerance of uncertainty. According to the Identity Disruption Model, individuals who experience adversities like abuse and maltreatment early in life may lack a clear sense of self, making them highly reliant on external cues to define themselves. When faced with uncertain cues, they may perceive them as unbearable, contributing to impaired intolerance of uncertainty (Campbell, 1990; Demir, 2023; Hayward et al., 2020; Vartanian et al., 2018). Moreover, intolerance of uncertainty is a precursor to anxiety, and the association between maltreatment and anxiety disorders has been well-established in previous research (Hovens et al., 2012; Kutuk, 2023; Quenneville et al., 2020; Scott et al., 2012). Additionally, our study indicates that intolerance of uncertainty is linked to lower levels of spiritual well-being, aligning with the recent findings of Satıcı et al. (2022) on the relationship between intolerance of uncertainty and overall well-being.

### Emotion Regulation as a Mediating Factor

Another key finding of this research is that emotion regulation mediates the relationship between childhood psychological maltreatment and spiritual well-being, consistent with previous studies showing that psychological maltreatment can hinder emotion regulation (Burns et al., 2010; Shields & Cicchetti, 1998; Weissman et al., 2019). Well-functioning emotion regulation is nurtured within supportive caregiving environments, where caregivers can read and appropriately respond to infants' emotions, lowering distress and fostering positive interactions (Calkins & Hill, 2007). It is not surprising, therefore, that children growing up in families where maltreatment occurs may lack such nurturing care and experience difficulties in emotion regulation. Moreover, emotion regulation difficulties after maltreatment may result from neurobiological changes in the brain (Cicchetti & Rogosch, 2009). Our study reveals that emotion regulation significantly predicts spiritual well-being, consistent with previous research that found emotion regulation difficulties to be positively associated with spiritual weaknesses and negatively associated with spiritual well-being (Mellat et al., 2023). Religion can influence emotion regulation by encouraging coping mechanisms, setting goals, and providing social support, which in turn contributes to spiritual development (Vishkin et al., 2014). In most religions, practicing

emotion regulation during challenging events is highly recommended this is also the case in Islam, which is the predominant religion in Türkiye. Therefore, it is not surprising to observe that both emotion regulation and spirituality are higher or lower in the same individual.

### **Serial Mediation via Intolerance of Uncertainty and Emotion Regulation**

Finally, the model of serial mediation involving intolerance of uncertainty and emotion regulation in the relationship between childhood psychological maltreatment and spiritual well-being was validated in this study. Previous research has also explored the relationship between intolerance of uncertainty and emotion regulation, with both constructs linked to generalized anxiety disorder (GAD). Individuals with GAD have difficulty understanding their emotions and exhibit strong emotional reactions (Ouellet et al., 2019). They have difficulty describing and clarifying their emotions, possess weak self-soothing abilities, and struggle with emotion regulation (Mennin et al., 2005). They tend to rely on worry and other ineffective strategies instead of employing adaptive emotion regulation mechanisms. The serial mediation model presented in this study provides valuable insights into the complex interplay between childhood psychological maltreatment, intolerance of uncertainty, emotion regulation, and spiritual well-being.

Overall, the findings of this study highlight the importance of understanding the mechanisms through which childhood psychological maltreatment can impact spiritual well-being. Intolerance of uncertainty and emotion regulation serve as critical factors in mediating this relationship and may have implications for mental health interventions aimed at promoting spiritual well-being and overall psychological well-being. Nonetheless, further research is needed to deepen our understanding of these mechanisms and their potential applications in clinical settings.

### **Implications**

The findings of this study have significant implications for understanding the long-term impact of childhood psychological maltreatment and its potential association with adulthood. Childhood psychological maltreatment can lead to difficulties in emotion regulation and intolerance of uncertainty, ultimately contributing to lower levels of spiritual well-being in individuals. Caregivers should recognize the profound influence of their actions on a child's entire life, emphasizing the importance of protecting children from harm and providing a nurturing and supportive environment.

To address the issue of childhood maltreatment and promote well-being, the Strong Communities for Children Programme (McDonnell et al., 2015), which focuses on enhancing community social support, child safety at home, parental stress reduction, and improved parental practices, can be instrumental in preventing child maltreatment cases. Implementing such community-based programs may help in reducing the incidence of childhood maltreatment and its potential long-term consequences. Furthermore, spiritual therapies such as meditation, relaxation

techniques, and prayer therapy, as demonstrated in the studies by Jafari et al. (2013) and Nasution et al. (2020), have shown promise in increasing spiritual well-being. Since Türkiye shares similarities with predominantly Muslim communities like Iran and Indonesia, where these interventions were successful, they can also be applied to Turkish populations. Such spiritual interventions may not only benefit individuals who have experienced childhood psychological maltreatment but also those who have faced other forms of abuse.

Considering Türkiye's predominantly collectivist culture, promoting group participation in spiritual or religious events may offer practical benefits. Creating supportive environments for individuals in need, where they can engage in spiritual practices together, could potentially foster a sense of belonging and well-being. Therefore, creating this kind of environment for people in need is crucial.

## Limitations

This study has some limitations that must be taken into consideration before interpreting its findings. First, the cross-sectional design employed in this research does not provide a cause-and-effect relationship. Studies that adopt an experimental or longitudinal design would be better suited for investigating a cause-and-effect relationship. Second, the data collection relied on self-report instruments, which may introduce response biases. To mitigate this potential bias, future studies could incorporate observational techniques or conduct interviews for a more comprehensive and accurate assessment of the variables under investigation. Lastly, although data were collected from participants in 46 cities in Türkiye, the use of convenience sampling might affect the generalizability of the findings. Moreover, Spiritual Well-being Scale, which was derived from Functional Assessment of Chronic Illness Therapy-Spiritual Well-Being (FACIT-Sp-12), was used in the present study to measure spiritual well-being. Researchers should keep in mind that concept of spiritual well-being is a really broad concept which may make difficult to measure with a scale. Furthermore, because of the nature of the questions, which are more likely to be relevant to peacefulness, meaning, and purpose, the spiritual well-being scale may be considered a scale that measures mental health rather than a specialized one for spiritual well-being. Therefore, in future research, different methods to measure spiritual well-being may be used to differentiate between spiritual well-being and mental health and related concepts. By doing so, the risk of a tautological relationship would be eliminated.

## Conclusion

In conclusion, this study offers valuable insights into the realm of spiritual well-being within the context of Turkish culture. Despite the mentioned limitations, the findings support the proposed model wherein intolerance of uncertainty and emotion regulation mediate the relationship between childhood psychological maltreatment and spiritual well-being.

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**Availability of Data and Material** Data will be made available on request.

## Declarations

**Conflict of interest** No conflict of interest exists regarding this manuscript for any of the authors.

**Preregistration Statement** This study was not preregistered.

**Ethical Approval** The study protocol was approved by the Yildiz Technical University Scientific Research and Ethical Review Board (Report Number: 20221201839). The study was performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its subsequent updates.

**Consent to Participate** Informed consent was obtained from all participants included in this study.

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