




Research Article

The Relationship Between Psychological Hardiness and Mindfulness in University Students: The Role of Spiritual Well-Being

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Abstract

The purpose of the research is to reveal the role of spiritual well-being in relationship between psychological hardiness and mindfulness in university students. The sample of the research consisted of a total of 561 university students with convenience sampling strategy who were between 17-49 years of age and were studying in Konya 2017 and 2018. The research is done in accord with relational scanning which is a subgenre of general survey model. In this research structural equation modeling analysis has been applied to test the relationships among psychological hardiness, mindfulness and spiritual well-being variables of university students. Structural equation modeling analysis has been carried out using AMOS 19 software. In the study, 'Demographic Information Form', 'The Psychological Hardiness Scale', 'Five Facets Mindfulness Questionnaire' and 'Spiritual Well-Being Scale' were used. According to the findings obtained from the research, the major independent variable which affects the psychological hardiness of university students was mindfulness. A significant positive correlation was found between mindfulness levels and psychological hardiness levels. It is also observed that there is a positive linear correlation between spiritual well-being and psychological hardiness and mindfulness.

Keywords:

Psychological Hardiness • Mindfulness • Spiritual Well-Being

Üniversite Öğrencilerinde Psikolojik Dayanıklılık ve Bilinçli Farkındalık Arasındaki İlişki: Manevi İyi Oluşun Rolü

Öz

Bu araştırmanın amacı, üniversite öğrencilerinde psikolojik dayanıklılık ve bilinçli farkındalık arasındaki ilişkide manevi iyi oluşun rolünü ortaya koymaktır. Araştırma, genel tarama modelinin bir alt türü olan ilişkisel tarama modeline göre gerçekleştirilmiştir. Araştırmanın örneklemini, 2017-2018 yılı içerisinde Konya ilinde öğrenim gören uygun örnekleme yöntemiyle seçilmiş, 17-49 yaş aralığında olan 561 üniversite öğrencileri oluşturmaktadır. Araştırmada üniversite öğrencilerinin psikolojik dayanıklılık, bilinçli farkındalık ve manevi iyi oluş değişkenleri arasındaki ilişkinin sınanması amacı ile yapısal eşitlik modellemesi analizi yapılmıştır. Yapısal eşitlik modellemesi analizi AMOS 19 Programı ile gerçekleştirilmiştir. Araştırmada 'Demografik Veri Toplama Formu', 'Psikolojik Dayanıklılık Ölçeği', 'Beş Boyutlu Bilinçli Farkındalık Ölçeği' ve 'Manevi İyi Oluş Ölçeği' kullanılmıştır. Araştırmadan elde edilen bulgulara göre üniversite öğrencilerinde psikolojik dayanıklılığı etkileyen en önemli bağımsız değişkenin bilinçli farkındalık değişkeni olduğu bilgisine ulaşılmıştır. Bilinçli farkındalık düzeyleri ile psikolojik dayanıklılık düzeyleri arasında pozitif yönlü anlamlı ilişki bulunmuştur. Ayrıca manevi iyi oluş ile psikolojik dayanıklılık ve bilinçli farkındalık arasındaki pozitif yönlü doğrusal bir ilişki olduğu görülmektedir.

Anahtar Kelimeler:

Psikolojik Dayanıklılık • Bilinçli Farkındalık • Manevi İyi Oluş.

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As a socio-cultural creature, human beings coalesce into their natural environment in which they supply their needs and the social environment in which they develop their personalities. In order to be healthy and harmonious, both their physical needs such as eating, drinking, dressing and social and psychological needs of feeling like belonging to the society and being approved by others must be met (Terzi, 2005). People may find it difficult to adapt to the changes in their environments or may face various stressful situations during this process. Some may be able to get through more easily, while others may find it more challenging. The difference between the responses to stress prompted researchers to examine the distinctive aspects of people who are more adaptive (Aydoğdu, 2013). Some people even in the face of difficulties can continue their lives. Psychological hardiness is one of the distinguishing features of these people (Terzi, 2008).

Psychological hardiness is described as personality style or pattern associated with continued good health and performance under stress (Kobasa, 1979). There are existential approaches that define hardiness as a combination of emotional or cognitive attitudes and behaviors required not for survival but to enrich life throughout human development (Maddi, 2002). Psychological hardiness consists of interrelated three dimensions (Kobasa, 1979), one of which is self-dedication, explained as being interested in various areas of life and evaluating their work as worth the effort. The relationship between the person's family, work, and social environment, interpersonal relationships, values and beliefs, covers all areas of his life and thus provides sources needed to cope with stressful situations (Kobasa, Maddi & Kahn, 1982). The control dimension involves struggling to have an impact on the outcomes instead of being passive and weak (Maddi, 2006) which leads them to think that they can adjust the stress triggering situation (Gençöz & Motan, 2009). In the challenge dimension, people believe that their experiences should be considered as an opportunity for development and progress (Kobasa, 1979). Challenge is part of daily life, instead of a menace, it is considered as something promoting development (Maddi, 2002). Psychologically hardy people promote their well-being by using effective coping strategies in the face of stressful events (Terzi, 2005). It was discovered that psychological hardiness is related to depression and anxiety (Manning, Williams & Wolfe, 1988; Motan, 2002); stress (Westman, 1990); coping (Delahajj, Gaillard & Dam, 2010); work satisfaction and social support (Maddi, Kahn & Maddi, 1998).

Mindfulness, which is another variable of this research, has been used in psychotherapy in the West for nearly thirty years, and it has been recognized and investigated increasingly in our country in the last decade. (Kımay, 2013). Mindfulness is based on the 2,500 year Buddhist meditation practice as its origin. Although the first practices of mindfulness belong to Eastern philosophy, it is independent of any ideology or religion (Çelikler, 2017). Mindfulness is the process of focusing to

situations that are occurring on the present moment (Kabat-Zinn, 1994), a state of accepting and experiencing them rehashing the past or imagining the future (Bishop et al., 2004). Baer (2003) defined mindfulness as nonjudgmental observations of the ongoing stream of internal and external stimuli as they arise. When dealing with difficult physical or emotional situations, being nonjudgmental increases mindfulness, enabling us to see the situation as it is (Germer, 2005).

Mindfulness is the state of being conscious or aware of present moment, but most people can't achieve it. Thus, mindlessness arises (Özyeşil, 2011), in which one's refuse to recognize or pay attention to an object of emotion, thought, intention or perception (Brown & Ryan, 2003). Mindfulness, on the other hand, gathers attention to the present, instead of past or future. Such ability to direct attention increases one's energy, provides a clear vision and can also be developed by anyone (Germer, 2004).

Mindfulness is a technique that profoundly changes our relationship with our thoughts and emotions. An effort to observe what is going on, by focusing on one's internal experience, without appraisal, judgment and impartiality. For example, one can figure out that he/she is experiencing depression rather than being depressed, and he/she can objectively note the moments when he is actually free from grief or pain, rather than experiencing constant and inevitable grief. Therefore mindfulness has become increasingly popular in the therapist's toolbox as a valuable contribution to therapy (Morales Knight, 2010).

Bishop, et al. (2004) stated that mindfulness consists of two components. The first is the self-regulation of attention, which means sustaining attention on the experience to recognize the events in the mind, and the second is the orientation of the concepts of acceptance, openness and curiosity experienced during the instant experience. Shapiro et al. (2006) considered mindfulness in three dimensions: attitude, intention and attention. Attitude includes acceptance, impartiality and observation in current situation. Intention is the decision to focus on the present moment, and attention is the conscious orientation of the mind's effort to understand only the situation that occurs at that moment. As mindfulness improves, one can learn not to respond to the events in the same way as before and not to judge them. Instead, he/she can choose to experience the present moment and act accordingly what the moment requires. By means of mindfulness, in experiencing unpleasant feelings, instead of eliminating, suppressing, avoiding and judging one prefers to think clearly with an attitude including compassion and acceptance (Çelikler, 2017).

Mindfulness was first applied in therapy by John Kabat-Zinn in 1979 as Mindfulness-Based Stress Reduction (MBSR) program. In this program, mindfulness is taught as a skill to chronic pain patients to reduce symptoms and chronic disease-based stress (Kımay, 2013). Mindfulness-based therapies are practiced to solve many psychological

problems such as stress and depression (Shapiro, Schwartz & Bonner, 1998), anxiety disorders (Miller, Fletcher & Kabat-Zinn, 1995); Goldin and Gross, 2010), eating disorders (Lavender, Gratz & Tull, 2011), social anxiety (Rasmussen & Pidgeon, 2011).

Spiritual well-being is another concept examined in relation to psychological hardiness and mindfulness. People's views about the world and the goals that they try to to achieve are different. While some people value material assets, others attach special importance to faith and spiritual values. For people with these values, spirituality is essential for the protection of mental health (Kardas, 2017). Besides its definition of "intangible, spiritual things", spirituality is also defined as "heart power, morale" (TDK, 2019). The difference indicates that the spirituality is a multidimensional and multifaceted concept (Düzgüner, 2013). It can be said that spirituality is the seek for meaning, unity, devotion, love and the highest human potential (Pargament, 1999). In addition, spirituality is a result of life-long knowledge and includes elements that constitute the purpose of a person's life and that are meaningful to the person (Çetinkaya, Altundağ & Azak, 2007). Although spirituality and religion are used in the same sense from time to time, they are different from each other. Religion is an institutional structure with certain rules, stipulating submission as a condition, and goes along with the basis of learning and teaching (Coyle, 2008). On the other hand, spirituality is an extensive component of religion, so cannot be confined to religious belief alone. Spirituality is not only a matter of religious people, but people who do not have religious belief can have spiritual values (Kızıllırmak, 2015). The spiritual well-being involves processes such as questioning the purpose of life and realizing the connections to greater powers (Korkut Owen & Owen, 2012).

The concept of spiritual well being was expressed for the first time in the United States at a conference about aging (White House conference on Aging) in 1971. Spiritual well being is the willingness to seek the meaning and purpose of a person's existence, the questioning of everything, the understanding of abstract things that cannot be explained and not easily understood (Opatz, 1986). Hawks, et al. (1995) defines spiritual well being as communicating with people, having purpose in life, believing and connecting a supreme power. There are two sub-dimensions of spiritual well being. While religious well-being shows the relationship with a superior power, existential well-being includes psychosocial elements. It includes feelings about who the person is, what he or she does, and where he or she belongs. Both religious and existential well-being include dimensional supremacy and the movement beyond itself (Ellison, 1983). Spiritual well being is related to physical, psychological and social well being (Lou, 2015). Spiritual well-being has a role in the reduction of physical disorders and mental illness (George et al., 2000). In addition, a significant relationship was found between spiritual well-being and stress (Calicchia & Graham, 2006); anxiety (Kaczorowski, 1989); depression (Dunn and Shelton, 2007); life satisfaction (Dami, Tamon & Alexander, 2018).

In this study, it is aimed to reveal the mediating effect of spiritual well-being between psychological hardiness and mindfulness. When the research about spiritual well-being examined, it will be noticed that a wide variety of studies carried out and this issue is important for the society. There is limited number of studies that deal with the levels of spiritual well-being and psychological hardiness. This study is going to fill the gap in the literature because it gives clues about spiritual well-being between psychological hardiness and mindfulness.

Method

Research Model

The present research, which has a quantitative research paradigm, aims to investigate the relationships between psychological hardiness, mindfulness and spiritual well-being in university students testing the relationships between these variables. A relational survey model has been used in the research. A relational survey is a research model conducted in order to define the relationships among two or more variables and in order to obtain clues concerning cause-and-effect relationships (Büyüköztürk, Kılıç-Çakmak, Akgün, Karadeniz, & Demirel, 2008).

Sample

The sample of the study was selected by using convenience sampling strategy. Participants of the present research consists of 561 university students, who studied at the department of Educational Sciences in the fall semester of 2017-2018 academic year. 434 were females (77,4%) and 127 were males (22.6 %) and in total 561 students who voluntarily responded to the scale item in this study. 361 students (64%) aged between 17 and 21, 155 students (28%) aged between 22 and 26, 23 students (4%) aged between 27 and 31, 22 students (4%) aged between 32 and over.

Data Collection Tools

Demographic Information Form. This was designed by the researcher to determine participants ages, gender, education level.

The Psychological Hardiness Scale. The Psychological Hardiness Scale was developed by Işık (2016). A systematic approach was followed for developing the scale. Total of 407 adults participated in the study (285 female, 122 male). Exploratory and confirmatory factor analyses are applied in order to determine the construct validity of the scale. After the exploratory factor analysis, the scale included 21 items and three factors. These factors were labeled as commitment, control and challenge in light of the relevant literature. Also the three factors construct of the

scale is confirmed by confirmatory factor analysis. Besides according to t-test results differences between each item's means of upper 27% and lower 27% points were significant. The Cronbach alpha coefficient for the whole scale was found to be .76, whereas the values of Cronbach alpha coefficient for dimension factors of the scale ranged between .62 and .74. The findings of the study revealed that the scale was a valid and reliable instrument for measuring psychological hardiness personality trait.

Five Facets Mindfulness Questionnaire. Five Facets Mindfulness Questionnaire adapted to Turkish by Kınay (2013). The aim of the present study was to adaptate in Turkish and determine the reliability and validity of the Five Facets Mindfulness Questionnaire. Because mindfulness is not a well-known concept and research area in Turkey, with the aim of increasing researches on it, the adaptation of Five Facets Mindfulness Questionnaire (FFMQ) into Turkish, validity and reliability studies of the scale were done on a group of university students in this study. The original and two weeks later Turkish versions of the scale were administered to translation and interpreting studies and English language and literature 4th year undergraduate students and significant positive correlations between Turkish and English version scores were found. The Cronbach's Alpha internal consistencies of the scale were between .67 and .85. To determine the construct validity of FFMQ, factor analyses were done and it is found that the scale has five factors. The communalities for all items were between .38 and .79. Factor analyses showed that 4th item of the scale belongs to different factor than the original one's. The test- retest correlations of the scale were between .23 and .71. There were also significant positive relationships with respect to the correlation analysis employed for the convergent and discriminant validity of FFMQ.

Three-factor Spiritual Well-being Scale. Three-Factor spiritual well-being scale was developed by Ekşi ve Kardaş (2017), as a way of assessing how well adults' lives align with their values and their understanding of ultimate meaning in personal, social, environmental, and transcendental terms. The items on the scale were selected based on existing literature and essays addressing spirituality. The scale was then shown to 17 specialists in spirituality and edited in response to their comments to produce the last version of each item. The scale, composed of 49 items, was then administered to 865 adults (498 women, 57.6%; 367 men, 42.4%). Based on the results, the item set was then resolved to a 29-item scale, and Exploratory Factor Analysis revealed three significant dimensions of spirituality, which are transcendence, harmony with nature, and anomie. Construct validity and reliability were empirically ascertained and the goodness of fit was determined for the proposed model of spiritual well-being. (KMO: .951, when eigenvalue is 2; total item explanation variance: 58.337 %). The ensemble of the model's coefficients are $\chi^2/sd = 4.11$, RMSEA = .06, SRMR = .50, NFI = .90, CFI = .92. The results show that the Spiritual Well-Being Scale has the ability to measure adults' spiritual well-being in a valid and reliable manner.

Data Analysis

Structural equation modelling analysis was conducted in order to define the role of spiritual well-being in relationship between psychological hardiness and mindfulness in university students. Structural equation modelling is a statistical approach that reveals the causal and reciprocal relationships between observed and latent variables in order to test a theoretical model (Schumacker & Lomax, 2004). Structural equation modelling analysis was conducted on AMOS 19.0 Program for the present research. The model proposed in this study relating to the relationships among psychological hardiness, mindfulness and spiritual well-being is presented in Figure 1.

Findings

The obtained model ($X^2 = 189.078$, $df = 42$, $p < .001$) includes three exogenous (transcendence, harmony with nature and anomi) and two endogenous (mindfulness and psychological hardiness) data. Every path presented in the model was found statistically significant. The Bentler-Bonett normed fit index (NFI), The Tucker-Lewis coefficient fit index (TLI) and other fit indices showed that the model presents a good fit (Table 1). Every two-way correlation between endogenous data in the model is high and statistically significant. These values are also affected from the correlation values of the sub-dimensions of the scales used in the research.

Table 1
Statistical values related to the fitting of structural equation model

Measure	Good fit	Acceptable fit	Fit Index Values of the Model
(X^2/sd)	≤ 3	$\leq 4-5$	4.50
RMSEA	≤ 0.05	0.06-0.08	0.06
SRMR	≤ 0.05	0.06-0.08	0.06
NFI	≥ 0.95	0.94-0.90	0.92
CFI	≥ 0.97	≥ 0.95	0.95
GFI	≥ 0.90	0.89-0.85	0.95
AGFI	≥ 0.90	0.89-0.85	0.91
TLI	≥ 0.95	0.94-0.90	0.91

According to the fit values presented in Table 1, , $X^2/sd = 4.50$, $RMSEA = 0.06$, $SRMR = 0.060$, $NFI = 0.92$, $CFI = 0.95$, $GFI = 0.95$, $AGFI = 0.91$ ve $TLI = 0.91$ olduğu bulunmuştur. Generally, the model has desired fit values (Bollen, 1989; Browne & Cudeck, 1993; Byrne, 2010; Hu & Bentler, 1999; Kline, 2011; Tanaka & Huba, 1985). Single factor model that was tested is presented in Figure 1. All the paths shown in the model are meaningful at 0.001 level.

Figure 1
The path analysis for the model

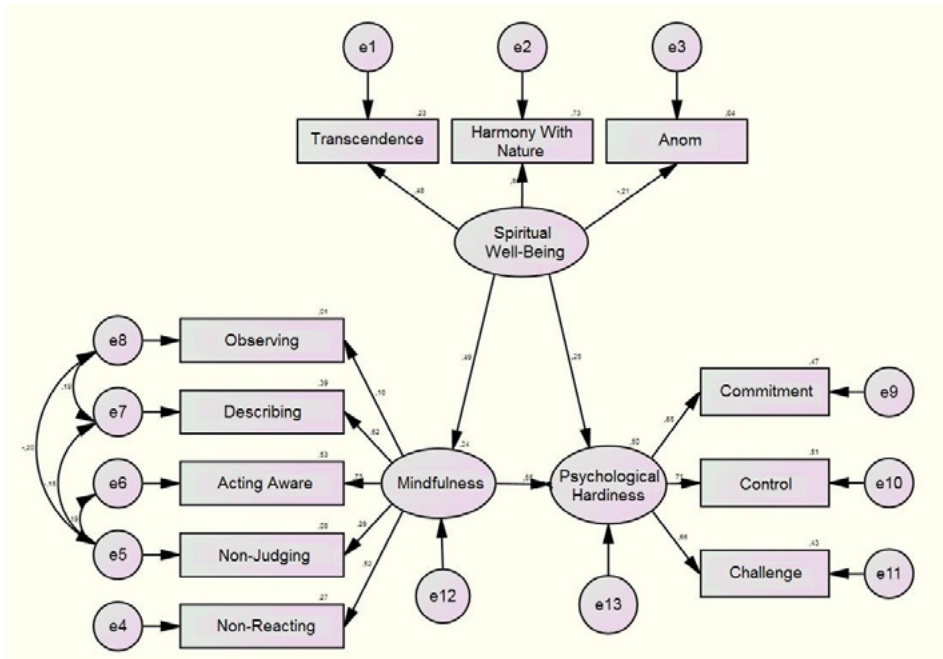


Table 2
Model for the relationships between spiritual well-being, mindfulness and psychological hardiness and in the university students.

Predictor Variable	Dependent Variable	Total Effect	Direct Effect	Indirect Effect	Standard Error	Critical Value
Spiritual well-being	Mindfulness	0.49	0.49	0	0.57	6.20*
Spiritual well-being	Psychological hardiness	0.25	0.25	0	0.41	3.57*
Mindfulness	Psychological hardiness	0.55	0.55	0	0.10	6.70*

Total effect = Direct effect + Indirect effect, * $p < 0.01$, ** $p < 0.05$.

Examination of the model in Figure 1 and the data in Table 2 shows that the most important independent variable affecting psychological hardiness is mindfulness ($t=6.70, p<0.01$). Correlation coefficient of this factor was found as $\beta=0.55$. Predicting university students relationships between mindfulness levels and psychological hardiness levels show that there is a positive linear correlation between these two variables. Namely, the university students mindfulness levels increase as their psychological hardiness levels increase according to the research findings.

In addition, the second most important variable affecting psychological hardiness in the tested model is spiritual well-being ($t= 3.57, p<0.01$). Correlation coefficient value of this factor was found as $\beta= 0.25$. The predictor relationship between university students spiritual well-being and their psychological hardiness levels is a positive linear relationship. In other words, findings revealed that as the university students spiritual well-being levels increased, their psychological hardiness levels increased as well.

Finally, according to the tested model, the most important independent variable affecting mindfulness is spiritual well-being ($t=6.20, p<0.01$). Correlation coefficient value of this factor was found as $\beta = 0.49$. The predictor relationship between university students mindfulness and their spiritual well-being levels is a positive linear relationship. In other words, findings indicated that as the university students mindfulness levels increased, their spiritual well-being levels increased.

Discussion

According to the results of this study, mindfulness was found to have the most significant effect on psychological hardiness. It was observed that there was a positive linear relationship between mindfulness levels and psychological hardiness levels of university students. There are studies in literature similar to the results of this research. Vinothkumar, Vinu & Anshiya (2013) found that mindfulness has a positive correlation with commitment and control, that are two of the sub-dimensions of hardiness. Pāvulēns & Vecgrāve (2013) also found that mindfulness was found to be significantly related to commitment, a sub-dimension of psychological hardiness, in the positive direction. Another research that indirectly supports the results of this study was conducted by Balcı (2018) to reveal that the participants had positive changes in resilience and emotional intelligence scores after the mindfulness program. Deniz, Erus & Büyükcebeci (2017) found that the increase of mindfulness level increases emotional intelligence level. There are studies showing that mindfulness is positively significant in predicting psychological resilience (Keye & Pidgeon, 2013; Taşdemir, 2018). Kemper and Khirallah (2015) found that as a result of mind-body skills training in health professionals is associated with in mindfulness and resilience.

According to another finding of the study, the second important variable that affects psychological hardiness is the spiritual well-being variable. There are some studies that are parallel to the results of this research. Kanya (2000) conducted a study of university students, revealing that spiritual well-being and psychological hardiness are powerful predictors of self-esteem. Sedighehi, Bitā & Mahdi (2017) found that hope levels were higher in patients with higher commitment levels than the sub-dimensions of spiritual well-being and psychological hardiness. In a study

conducted by Carson and Green (1992) on 100 participants with (HIV+) virus, there was a significant relationship between existential well-being and psychological hardiness, which is the sub-dimension of spiritual well-being; people who can find meaning and purpose in their lives and who have high spiritual well-being are more hardy. Marsh, et al. (1999) found that spiritual well-being has a direct mediator effect on psychological hardiness and burnout. In addition, spiritual well-being should be considered as a factor in reducing burnout and work stress. A similar study by Sims (2000) shows that psychological hardiness and spiritual well-being are negatively related to burnout; existential well-being, which is sub-dimension of spiritual well-being, and psychological hardiness are positively related.

Finally it was found that the important independent variable that affects mindfulness was spiritual well being. It was concluded that there is a positive linear relationship between the spiritual well-being and mindfulness of university students. A literature review presents similar research conducted on this topic. Mathad, Rajesh & Pradhan (2019) found that satisfaction, mindfulness and self-compassion play an important role in the personal, social, environmental and transcendental areas of spiritual well-being. Research findings in a study conducted by Dami, Tameron & Alexander (2018) show that mindfulness significantly affects spiritual well-being. Silva, et al. (2016) studied the effect of mindfulness, self compassion and spiritual well being in chronic depression. According to the findings, it was determined that there was a negative correlation between depression and the mindfulness dimensions of non-reactivity and non-judging, and the spiritual well-being dimension of personal well-being. Colle, et al. (2010) concluded that there was a significant improvement in spiritual well-being after the MBSR (Mindfulness Based Stress Reduction) Program. Various studies examining the relationship between spirituality and mindfulness (Greeson, et al., 2011; Falb and Pargament, 2012). Even not directly related with this research, Carmody, et al., (2008) revealed that the increase in the level of mindfulness and spirituality was associated with decreased psychological distress and reported medical symptoms. Also the relationship between mindfulness and well-being has been examined in many studies. There are some researches showing that there is a significant relationship between mindfulness and well being (Carmody & Baer, 2008; Howell et al., 2008), psychological well being (Brown & Ryan, 2003; Çelikler, 2017), subjective well being (Brown & Kasser, 2005). Similarly, Jafari, et al. (2010), found a significant relationship between spiritual well-being and mental health; religious and existential well-being significantly predicted mental health.

According to the results obtained and the studies supporting these results directly and indirectly, spiritual well-being was found to be related to mindfulness and psychological hardiness levels of university students. The present research has certain limitations. The research has been limited by the university students. Therefore, the

obtained findings cannot be generalized to other age groups. Repeating the study with different socio-demographics, other age groups and professions can contribute to generalizing the limitations of this study's findings. There may be different variables mediate spiritual well-being. It is *useful to consider* different variables that may relate to spiritual well-being in future studies. Mindfulness has become increasingly researched. Also, mindfulness training program can be included in high school curriculum as in many schools worldwide. It is believed that conducting guidance studies in schools and different institutions related to spiritual well-being and psychological hardiness will be beneficial for public health.

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