




# Examining the Relationship between Spiritual Health, Depression, and Anxiety: A Cross-Sectional Study among Medical Sciences Students at Jiroft University of Medical Sciences, Iran

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## Abstract:

**Introduction:** Spiritual health is recognized as a fundamental component of overall well-being. This study aimed to investigate the relationship between spiritual health and the prevalence of depression and anxiety among students.

**Methods:** A cross-sectional, descriptive-analytical design was employed, including 201 students at Jiroft, Iran, in 2023. Data were collected using the Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and the Paloutzian and Ellison Spiritual Health Questionnaire. Statistical analyses included descriptive statistics, correlation coefficients, and tests for significance at a 0.05 level.

**Results:** The mean spiritual health score among participants indicated a moderate level of spiritual health. The average depression and anxiety scores reflected no or minimal levels of these disorders among the students. Statistical analysis revealed a significant inverse relationship between spiritual health and both anxiety (correlation coefficient = -0.246) and depression (correlation coefficient = -0.473). Higher spiritual health was associated with lower levels of depression and anxiety. Additionally, spiritual health was significantly higher among students aged 19-24, females, and those in academic semesters 4 to 7. Anxiety and depression were more prevalent among nursing students, those in later academic semesters, and students whose parents were retired or whose mothers had lower educational attainment.

**Discussion:** The findings demonstrated that greater spiritual health is associated with reduced levels of depression and anxiety among medical students.

**Conclusion:** The results of this study underscore the potential protective role of spiritual well-being in mental health and highlight the importance of integrating spiritual health promotion into student support programs to enhance resilience against psychological distress.

**Keywords:** Spiritual health, Depression, Anxiety, Medical students, Mental health, Psychological distress.

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## 1. INTRODUCTION

Spiritual health is an important dimension of individual health. Researchers and experts worldwide have offered various definitions of spiritual health, revealing both significant similarities and differences. These differences and similarities arise from the social conditions, cultures, and religious or non-religious beliefs of individuals [1]. Health is a concept that is difficult to fully express in words because it is one of the most intuitive concepts people understand.

The World Health Organization (WHO) defined health as a state of complete physical, mental, and social well-being, not merely the absence of disease or disability [2]. This classic definition is fundamental because it identifies the essential elements of health. It emphasizes that health is a comprehensive concept requiring interaction and interdependence among its various components [3]. The necessity of spirituality in humans is as fundamental as the need for breathing to keep the body alive [4]. Spirituality is identifiable for all people in every society and around the world. It is a life-giving principle of human existence and is accepted by many religions, cultures, and traditions worldwide [5]. On the other hand, some believe that spirituality is an innate, dormant quality present from birth and that it advances a person through life experiences. Spirituality is a way to experience a transcendent connection to a power beyond oneself, which guides life and gives meaning to death [6]. Spiritual health is considered a fundamental part of the framework of health dimensions, just like physical, mental, and social health. It is a determining and influential factor [7]. Additionally, it acts as a protective factor, promoting health and preventing disease. Moreover, spiritual health can be considered a successful strategy that supports human life at all stages and in all areas, including stressful situations, illnesses, and even death. Studies have reported that spiritual health is an important therapeutic factor in the healing process of patients [4, 8].

Based on research in the field of spiritual health, connection with oneself, others, and the sacred leads to spiritual elevation and emotional empowerment. Emotional support and attention to spiritual activities are invaluable. There is abundant evidence of a strong relationship between religion and health, which highlights the importance of spiritual health [9, 10]. The relationship between mental health and spirituality has attracted psychologists' attention in recent years [11]. Research demonstrated that spirituality has a significant impact on mental and physical health [12]. Several researchers have concluded that spirituality has a profound effect on individuals' mental health [13, 14]. These studies found that those with higher spirituality levels had lower depression. The authors stated that attending religious ceremonies had little effect on depression levels; rather, the distinguishing factor between healthy and depressed individuals is belief in a higher power, prayer, and having a relationship with a higher power. Hills *et al.*, in a study on helplessness and spirituality among outpatient patients, found that individuals who expressed anger toward God or

questioned God (a form of negative coping) experienced more anxiety and distress and were in a state of ambiguity. Additionally, their quality of life was negatively affected by this negative coping [15]. Various studies in Iran have reported the prevalence of psychological problems among students between 23% and 57% [16, 17]. Among the challenges facing young students are anxiety, depression, hostility, aggression, and low assertiveness [18, 19]. Lam *et al.*, in a screening study to determine the prevalence of common mental disorders, identified anxiety and depression as the most common disorders in Hong Kong, with a prevalence of 13.3%. Furthermore, 45.7% of individuals with major depressive disorder experience anxiety disorders at least once in their lifetime [20]. A stressful life, biological and psychological vulnerability, common underlying structures, cognitive-behavioral maintaining factors, and shared treatment outcomes are similarities between emotional disorders, such as anxiety and depression [21].

Anxiety is defined as intense, vague fear and excessive worry (expectation combined with apprehension) about a number of events and activities perceived as dangerous [22]. This state occurs most of the day and is accompanied by physical symptoms (such as heart palpitations, trembling, choking sensations, and bodily pains), cognitive symptoms (such as confusion, impaired perception of people and meaning, overemphasis on certain events, reduced concentration and learning ability, and impaired associative thinking), and emotional symptoms (such as constant worry, dread, panic, anxiety, and apprehension about an unclear future event) [23, 24]. Anxiety is the most common psychiatric disorder. Its prevalence in Iran is higher than in many other countries. According to the national mental health survey, the prevalence of anxiety disorders in Iran is 15.6% [25]. Depression is also one of the most common neurological and psychiatric diseases. It is characterized by pathological sadness accompanied by varying degrees of slowed reactions [26-28]. Students are at risk of this disorder due to academic pressure, exam anxiety, emotional and social problems, and overall issues related to growth and maturation. The estimated prevalence of depression among students is 13.6% [29]. Given the role of spiritual health in coping with mental disorders, the question arises: Considering the lifestyle and mindset changes among the younger generation and the role of spiritual health in physical, mental, and social health, is there a meaningful relationship between the level of spiritual health and common mental disorders, such as anxiety and depression, among students? Answering this question will help us better understand the relationship between spiritual and mental health, and the role of both in enhancing individuals' resilience against psychological stress and its consequences. Since the student community is one of the largest social groups, their religious tendencies play an effective role in mental health and coping with psychological distress. Anxiety and depression are two important aspects of mental health, and spiritual health is the core of human well-being. Previous studies have reported that spiritually based

interventions are effective in reducing psychological stress in educational contexts. Notably, Musyandi *et al.* (2024) reported that intensive Qur'an reading significantly reduced stress among boarding students, highlighting the importance of integrating spiritual practices into student support programs [30]. The relationship between mental health and spirituality has gained significant attention in recent years. Accordingly, this study aimed to investigate the relationship between spiritual health and the prevalence of depression and anxiety among students at Jiroft University of Medical Sciences in 2023.

## 2. MATERIALS AND METHODS

This study employed a cross-sectional (descriptive-analytical) design and used a census method to include all 201 medical students at Jiroft University of Medical Sciences in 2023. Jiroft University was selected because its students represent diverse socioeconomic and cultural backgrounds, and because it is a regional center; findings from Jiroft University provide insight into student well-being in underserved and less-studied contexts in Iran, where cultural and religious values strongly influence health perceptions. The inclusion criteria comprised all students enrolled at Jiroft University of Medical Sciences in 2023 who were present during the data collection period, able to read and understand Persian, and willing to participate in the study after being informed of its objectives and providing informed consent. Participants were also required to complete all research instruments in a single session, including the Beck Depression Inventory, Beck Anxiety Inventory, and the Paloutzian and Ellison Spiritual Health Questionnaire. Active participation during the data collection period, either in person or *via* online access, was also necessary for inclusion.

Exclusion criteria included any participant who withdrew consent at any stage of the study or expressed unwillingness to continue. Students who left more than 10% of the items unanswered on any questionnaire or whose responses were deemed invalid (such as repetitive answers or unrealistically short completion times) were excluded. Individuals who, due to cognitive impairment, acute conditions, or any situation preventing accurate comprehension of the questionnaires, could not complete the instruments properly were also excluded. Cases with missing essential identity data for linking to the study population, despite two attempts to correct the issue, were removed. In cases of duplicate responses, only the first and most complete valid response was considered. Data were collected using the Beck Depression and Anxiety Inventories (BECK) and a Spiritual Health Questionnaire. First, the study objectives were explained to the participants, and those who agreed to participate and gave informed consent completed demographic forms and the relevant questionnaires. The researcher supervised the completion of the questionnaire and answered any questions. The collected data were entered into SPSS version 22 and analyzed using appropriate statistical tests at the 0.05 significance level.

### 2.1. Data Collection Tools

The data collection tools included:

#### 2.1.1. Demographic Questionnaire

It covered age, gender, marital status, place of residence, field of study, academic term, dormitory residency, native or non-native status, parents' education, and parents' occupation.

#### 2.1.2. Beck Depression Inventory (BDI)

Developed by Beck *et al.* in 1961 [31], this 21-item questionnaire is among the most widely used tools for assessing depressive symptoms. Items focus mainly on cognitive aspects of depression, such as sadness, pessimism, feelings of failure, guilt, sleep disturbance, appetite loss, and self-disgust. Responses are rated on a 4-point scale from 0 to 3. Scores range from 0 to 63, with cutoffs indicating no/minimal (0-13), mild (14-19), moderate (20-28), and severe depression (29-63). The BDI has demonstrated high reliability and validity in Iranian populations [32-34].

#### 2.1.3. Beck Anxiety Inventory (BAI)

This 21-item self-report questionnaire measures anxiety severity in adolescents and adults. Each item is rated on a 4-point scale (0 to 3) to describe common anxiety symptoms (mental, physical, panic-related). Total scores range from 0 to 63. The BAI has high reliability (Cronbach's alpha = 0.92) and validity [35, 36].

#### 2.1.4. Spiritual Health Questionnaire

Developed by Paloutzian and Ellison (1983), this 20-item scale assesses spiritual health on a 6-point Likert scale from "strongly agree" to "strongly disagree." Ten items measure religious health, and ten measure existential health. Total scores range from 20 to 120 and are categorized into low (20-40), moderate (41-99), and high (100-120) spiritual health. The questionnaire has been validated and shown to be reliable in Iranian studies (Cronbach's alpha = 0.87) [37].

### 2.2. Data Analysis

After entering the data into SPSS version 22, descriptive statistics, including mean, standard deviation, frequency, and percentage, were calculated. The Kolmogorov-Smirnov test was used to assess data normality. Parametric tests (independent t-test, ANOVA) and their non-parametric equivalents (Mann-Whitney, Kruskal-Wallis, Chi-square) were used to test hypotheses. A significance level of less than 0.05 was considered.

## 3. RESULTS

This cross-sectional descriptive-analytical study included 201 medical students from Jiroft. Table 1 presents demographic characteristics; most participants were aged 19-24, 50.2% were female, 82.6% were single, and 62.2% were non-native. About 46.8% studied medicine, and 27.9% were in terms 4-7.

Table 1 also shows the mean spiritual health scores: religious health, 41.1; existential health, 38.8; and total

spiritual health, 79.9, indicating a moderate level of spiritual health among the students.

Table 2 presents the information related to the average depression and anxiety scores among the students surveyed. The average depression score obtained was 12.9, indicating no or minimal levels of depression among the students surveyed. The average anxiety score obtained was 11.1, indicating no or minimal levels of anxiety among the students surveyed.

Table 3 indicates that the correlation coefficient between anxiety and spiritual health is -0.246 (a very weak to weak relationship), and a statistically significant inverse relationship is observed between the two variables.

Additionally, the results show that the correlation coefficient between depression and spiritual health is -0.473 (a moderate relationship), and a statistically significant inverse relationship is also observed between these two variables.

Table 4 presents information regarding the relationship between spiritual health and demographic variables among the students surveyed. The results indicate a significant relationship among age, gender, academic semester, and students' spiritual health. Specifically, spiritual health was higher among individuals aged 19 to 24, female students, and those in semesters 4 to 7 than in other groups.

**Table 1. The mean spiritual health scores.**

Variable	Mean	Standard Deviation	Minimum	Maximum
Religious health	41.1	6.2	17	53
Existential health	38.8	7.6	12	55
Spiritual health	79.9	12.3	38	105

**Table 2. Determination of depression and anxiety scores among the students surveyed.**

Variable	Mean	Standard Deviation	Minimum	Maximum
Depression	12.9	10.4	2	58
Anxiety	11.1	11.6	0	63

**Table 3. Determination of the correlation between depression, anxiety, and spiritual health variables among the students surveyed.**

Variable	Spiritual Health	
	Correlation Coefficient	P-value
Anxiety	- 0.246	0.000
Depression	- 0.473	0.000

**Table 4. Determination of the relationship between spiritual health and demographic variables among the students surveyed.**

Variable		Spiritual Health		
		Mean	Standard Deviation	P-value
Age	<18	70.1	1.6	0.002
	19-24	82.3	11.8	
	25-29	76.2	12.2	
	>30	78	17.01	
Gender	Female	81.6	13.3	0.043
	Male	78.1	11.07	
Academic Semester	1-3	79.5	11.9	0.015
	4-7	84.2	11.4	
	7-10	77.5	10.2	
	11-14	77.7	14.2	

Table 5 presents information regarding the relationship between anxiety and demographic variables among the students surveyed. The results indicated a significant relationship between anxiety and field of study, academic semester, father's occupation, and mother's occupation. Specifically, anxiety levels were higher in nursing students, those in semesters 11 to 14, and students whose parents are retired, compared to other groups.

Table 6 presents information regarding the relation-

ship between depression and demographic variables among the students surveyed. The results indicated a significant relationship between depression and field of study, academic semester, mother's education, father's occupation, and mother's occupation. Specifically, depression levels were higher in nursing students, those in semesters 11 to 14, students whose mothers have less than a high school diploma, and students whose parents are retired, compared to other groups.

**Table 5. Determination of the relationship between anxiety and demographic variables among the students surveyed.**

Variable		Anxiety		
		Mean	Standard Deviation	P-value
Academic field	Operating room	4.7	1.4	0.000
	Health	9.6	9.4	
	Nursing	15.3	13.1	
	Medicine	14.2	13.1	
	Laboratory science	5.1	4.9	
	Midwifery	8.2	9.7	
	Anaesthesiology	3.8	2.8	
Academic semester	1-3	10.6	10.7	0.008
	4-7	7.3	8.7	
	7-10	12	13.6	
	11-14	14.9	12.2	
Father's occupation	Freelance	10.9	10.1	0.001
	Employee	8.7	9.6	
	Unemployed	4	-	
	Retired	16.2	14.8	
	Other	6.09	5.6	
Mother's occupation	Freelance	4	1.5	0.004
	Employee	9.1	9.1	
	Housewife	13.4	13.4	
	Retired	14.6	13.6	
	Other	4.9	7.2	

**Table 6. Determination of the relationship between depression and demographic variables among the students surveyed.**

Variable		Depression		
		Mean	Standard Deviation	P-value
Academic field	Operating room	9.1	6.09	0.001
	Health	11.4	9.04	
	Nursing	15.6	11.4	
	Medicine	15.5	12.05	
	Laboratory science	7.8	4.8	
	Midwifery	8.4	5.8	
	Anaesthesiology	7.4	4.06	
Academic Semester	1-3	11.04	9.2	0.002
	4-7	9.4	7.1	
	7-10	15.1	13.2	
	11-14	15.8	10.5	

(Table 8) contd.....

Variable		Depression		
		Mean	Standard Deviation	P-value
Mother's education	Undergraduate	16.5	12.4	0.006
	Diploma	16.2	11.4	
	University education	11.2	9.7	
Father's occupation	Freelance	13.4	8.1	0.000
	Employee	9.6	7.4	
	Unemployed	7	4.3	
	Retired	18.3	13.5	
	Other	6.6	6.8	
Mother's occupation	Freelance	7.4	3.6	0.000
	Employee	9.2	6.8	
	Housewife	16.1	11.06	
	Retired	17.2	12.8	
	Other	6.9	8.6	

#### 4. DISCUSSION

Spiritual health is conceptualized as a state in which individuals harmonize and integrate their internal resources, channeling them toward resolving psychological and social challenges. This integrative process is associated with a decreased prevalence of mental health disorders. Furthermore, individuals who perceive a connection to a transcendent higher power often demonstrate enhanced adaptability to environmental stressors, resulting in a lower incidence of psychological disorders [38]. This study was conducted in 2023 to investigate the association between spiritual health and the prevalence of depression and anxiety among students at Jiroft University of Medical Sciences.

The findings demonstrated a significant association between spiritual health and the two psychological constructs of anxiety and depression, indicating that spirituality serves as a critical predictor of these conditions among students. Specifically, individuals exhibiting higher levels of spiritual health reported correspondingly lower levels of anxiety and depression. Notably, the strength of the observed correlations merits attention; the relationship between spiritual health and depression ( $r = -0.473$ ) was substantially stronger compared to that with anxiety ( $r = -0.246$ ). This disparity may be attributed to the nature of depression, which frequently involves experiences of hopelessness, loss of hope, and a sense of disconnection—dimensions that are directly addressed through spiritual and religious practices, such as prayer, *dhikr*, and rituals of gratitude [39]. In contrast, anxiety is more closely associated with anticipatory worry and uncertainty regarding future academic and professional outcomes, factors that may be less effectively influenced by the spiritual dimensions assessed in this study [40]. These findings are consistent with a recent study in Islamic psychology by Aprilianti (2024), which demonstrated that constructs, such as reliance on God, patience, and gratitude, enhance academic resilience by providing students with both spiritual and psychological strategies for stress management and by reframing stressors in a spiritual context. This framework may account for the more

pronounced protective effect of spiritual health against depression, relative to its comparatively modest impact on anxiety [41]. These findings are in agreement with the research conducted by Azimi and Zarghami, which identified a significant negative correlation between anxiety and religious coping strategies among students [42]. EyvanBaga *et al.* similarly reported an inverse relationship between spirituality and both anxiety and depression among students [43]. Zorufi's study demonstrated that greater engagement in religious practices among students is associated with improved mental health and a lower risk of developing mental disorders [44]. Adham *et al.* identified a significant relationship between existential and religious health, overall spiritual health, and various aspects of mental health, including somatic complaints, anxiety, social maladjustment, and depression [45]. Khadem *et al.* reported a significant negative correlation between spiritual health and mental health among students, indicating that higher levels of spiritual health are associated with reduced stress, anxiety, and depression in both male and female students [46]. According to researchers at Harvard, spirituality is grounded not only in belief but also in personal experience; individuals who hold beliefs without having spiritual experiences may miss numerous physical and psychological benefits associated with spirituality. Moreover, many people may undergo spiritual experiences without consciously recognizing them [47].

The results indicated that the students' spiritual health level was moderate. Given that religious and existential health constitute the two primary components of spiritual health, the study found that students scored higher on religious health than on existential health. Moreira-Almeida *et al.* demonstrated that religious behaviors are significantly associated with mental health indicators, including life satisfaction, happiness, positive emotions, and elevated morale [48]. EyvanBaga *et al.* found that the majority of students did not exhibit depression and had moderate levels of spiritual health, while over 90% experienced moderate to severe anxiety [43]. Farahaninia *et al.* reported that 98.8% of first-year nursing students

and 100% of final-year nursing students at Tehran University of Medical Sciences exhibited moderate levels of spiritual health [49]. Masoudi *et al.* found that the majority of students exhibited moderate spiritual health, a level considered less than optimal [50]. Asadzadeh's study reported that 94.73% of midwifery students had moderate spiritual health [51, 52]. Jokar *et al.* found that 49.5% of nurses exhibited desirable spiritual health, whereas 100% of nursing students demonstrated moderate levels of spiritual health [53]. Hsiao *et al.* reported that nursing students in Taiwan exhibited moderate levels of spiritual health [54]. Sayyadi *et al.* found that students in Sanandaj had an average spiritual health score of 96.33, reflecting an above-average to high level of spiritual health [55]. Tabibi *et al.* reported mean scores of 37.4 for religious health and 34.72 for existential health among medical students in Qom [56]. Asgari Ghoncheh *et al.* found that medical students in Qazvin had mean religious health and existential health scores of 36.2 and 34.59, respectively [57]. Ahmadpoori and Motaghi reported average scores of 49.9 for overall spiritual health and 44.96 for existential health [58]. Omidvari and Sanago *et al.* emphasized that spirituality is intimately connected to health, well-being, and recovery. Their findings indicated that daily spiritual practices, religious support, and self-assessed spiritual religiosity strongly predict better mental health and overall well-being, while lower levels of spiritual health are linked to heightened psychological stress, anxiety, depression, and loneliness [59, 60]. In other words, improving spiritual health empowers individuals through religion, alleviates psychological problems, enhances mental well-being, and consequently promotes healthy behaviors, positive emotions, optimism, and life satisfaction. Another key finding of the study was a significant relationship between spiritual health and demographic factors, such as age, gender, and academic semester. The highest spiritual health scores were observed in students aged 19 to 24, females, and those in semesters 4 to 7. Additionally, the study found that nursing students in their final semesters reported higher levels of depression and anxiety, which may be related to several factors, including heavy workloads, challenges in applying theoretical knowledge in stressful real-life situations, final exams, clinical competency tests, research projects, concerns about career readiness, and job security. These findings align with the results of studies by Alam *et al.* (2025) and Magier *et al.* (2023), who reported high levels of stress among final-year students due to exam preparation, transition anxiety, and academic demands [61, 62]. Masoudi *et al.* and Hsiao *et al.* reported that spiritual health scores increase with higher levels of education [50, 54]. Assaroudi *et al.* found that first- and fourth-year students had similar average levels of spiritual health [63]. Asadzadeh *et al.* found no significant statistical relationship between spiritual health and years of study [51]. Students who become more familiar with spirituality during their education tend to develop a more positive attitude toward it, are more likely to apply it in their future practice, and exhibit higher spiritual health. The greater spiritual health observed at advanced

academic levels may result from longer study durations and increased exposure to courses on spiritual health compared to lower levels. Jafari *et al.* found a significant association between gender and both the religious health dimension and the overall spiritual health score, with females scoring higher and demonstrating better spiritual health than males [64]. Tavan *et al.* also reported that females have better spiritual health status compared to males [65]. Rehman *et al.* found that females have higher levels of spiritual health compared to males [66]. Asgari *et al.*'s study on medical students in Qazvin reported that females had better religious health status than males [57]. The better spiritual health status of females may be associated with religious motivations, socialization systems, and emotional factors. Women tend to be more engaged with religious institutions, pray more frequently, read religious texts, consider religion important in their lives, and believe in life after death [67, 68]. Based on these findings, the higher spiritual health observed in females is justifiable. In Iran, spiritual health is deeply connected to cultural and religious traditions, especially those influenced by Islam. Active religious practices, such as daily prayer, reciting the Qur'an, and trusting God during difficult times, are widely regarded as important coping mechanisms for stress and uncertainty. In contrast, many Western contexts describe spirituality in broader, more individual terms. Although both perspectives acknowledge spirituality's protective role in mental health, the Iranian view emphasizes the integration of spiritual health with religious commitment and cultural values, which may explain its stronger association with depression and anxiety in this study [69, 70]. The results highlight the importance of spiritual health in predicting students' mental well-being. Therefore, it is recommended to implement appropriate educational programs focused on enhancing students' spiritual health to improve their resilience and ability to cope with mental health challenges during this critical period.

## 5. LIMITATIONS OF THE STUDY

The study has several limitations that should be considered when interpreting its findings. First, the cross-sectional design limits the ability to establish causality between spiritual health and the prevalence of depression and anxiety, as it only captures data at a single point in time. Longitudinal studies would provide stronger evidence of temporal relationships. Second, the reliance on self-reported questionnaires, such as the Beck Depression Inventory (BDI), Beck Anxiety Inventory (BAI), and Paloutzian and Ellison Spiritual Health Questionnaire, may introduce response bias, including social desirability bias, potentially affecting the accuracy of reported mental health and spiritual health levels. Third, the study was conducted exclusively at Jiroft University of Medical Sciences with a relatively small study population of 201 students, which may limit the generalizability of the findings to other universities or non-medical student populations in Iran or the broader Eastern Mediterranean Region. Fourth, the study did not account for potential confounding factors, such as socioeconomic status,

academic stress, or recent life events, which could influence both spiritual health and mental health outcomes. Fifth, the moderate level of spiritual health reported may reflect cultural or contextual factors specific to the study population, which were not explored in depth, potentially limiting the understanding of how cultural or religious diversity impacts the observed relationships. Finally, the lack of control over confounding variables, including academic stress, quality of social support, and socioeconomic status, is another important limitation. Future research should incorporate these variables to provide a more comprehensive insight into the relationship between spiritual health, depression, and anxiety among students.

## CONCLUSION

The findings of this cross-sectional study highlight a significant inverse relationship between spiritual health and the prevalence of depression and anxiety among students at Jiroft University of Medical Sciences, with the association being stronger for depression ( $r=-0.473$ ) than for anxiety ( $r=-0.0246$ ). While these findings suggest that spiritual health may serve as a protective factor, it is important to note that a cross-sectional design allows only for the identification of correlations, not causation. Nevertheless, these results underscore the importance of incorporating spiritual health promotion into student mental health programs through practical initiatives, including mindfulness-based workshops, peer support groups, and accessible counselling services. Overall, supporting spiritual health could play a crucial role in improving university students' mental health and academic success.

## AUTHORS' CONTRIBUTIONS

The authors confirm their contributions to the paper as follows: A.A. and E.F.: Study conception and design; A.M.: Data collection; R.R., K.H. and A.A.: Analysis and interpretation of results; S.D. and R.R.: Draft manuscript. All authors reviewed the results and approved the final version of the manuscript.

## LIST OF ABBREVIATIONS

BDI	=	Beck Depression Inventory
BAI	=	Beck Anxiety Inventory
WHO	=	World Health Organization

## ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This article reports the results of a research project approved by Jiroft University of Medical Sciences, Iran with the code of ethics (IR.JMU.REC.1402.059).

## HUMAN AND ANIMAL RIGHTS

All procedures performed in studies involving human participants were in accordance with the ethical standards of institutional and/or research committee and with the 1975 Declaration of Helsinki, as revised in 2013.

## CONSENT FOR PUBLICATION

To comply with ethical considerations in this research, participants' information was kept confidential, and others were not able to access it. The names and surnames of the participants were not used for data collection, and data collection was done after obtaining the code of ethics from Jiroft University of Medical Sciences. Participants were included in the study after being informed of its objectives and providing informed consent.

## STANDARDS OF REPORTING

STROBE guideline has been followed.

## AVAILABILITY OF DATA AND MATERIALS

The data of current study are available from corresponding author, [S.D], on a reasonable request.

## FUNDING

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## CONFLICT OF INTEREST

The authors declare no conflict of interest, financial or otherwise.

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