

RESEARCH ARTICLE

CAN SPIRITUALITY PROTECT MEDICAL STUDENTS FROM PSYCHOLOGICAL DISTRESS? EVIDENCE FROM A DESCRIPTIVE-ANALYTICAL STUDY

Francisca A Tjakradidjaja^{1*}, Sophie Dwiyanti¹

Faculty of Medicine, UIN Syarif Hidayatullah, Jakarta, Indonesia.

*Corresponding Author : francisca.tjakradidjaja@uinjkt.ac.id

ABSTRACT

Background: Heightened psychological distress is commonly reported among medical students due to academic pressure, multiple assessments, disrupted sleep, and a competitive learning environment. This study investigates the role of spirituality as a potential protective factor for mental health among first-year medical students.

Method: A descriptive-analytical design was employed, involving 115 students who completed a demographic questionnaire, the Daily Spiritual Experiences Scale (DSE), and the General Health Questionnaire-12 (GHQ-12).

Result: A total of 92 valid responses were obtained, resulting in an 80% response rate. Respondents were predominantly female (n = 61, 66.3%), with most aged 18 years (n = 59, 64.1%). Regarding Qur'anic memorization,

43.5% had memorized only a few short chapters, 40.2% had memorized 1-5 juz, and 4.3% had memorized 26-30 juz. Mental health screening indicated that 46.7% had a positive mental state, while 53.3% were categorized as having a negative mental state. Notably, 80.4% of students (n = 74) reported limited levels of spirituality. Statistical analysis revealed a strong positive correlation between spirituality and mental health (r = 0.99; p = 0.00).

Conclusion: These findings suggest that higher spiritual engagement may buffer psychological distress and that integrating spiritual approaches into medical education could help mitigate psychological distress in early training stages.

Keywords : Mental health, spirituality, medical students, psychological distress, academic stress, daily spiritual experiences scale, general health questionnaire-12

INTRODUCTION

Mental health is a fundamental determinant of personal development, academic achievement, and overall life satisfaction. A healthy mind lays the foundation for future growth, supporting both physical well-being and emotional resilience. Psychological, social, and emotional development are key indicators of mental wellness, often reflected in positive attitudes and adaptive responses to daily challenges. Positive thinking and emotional regulation are associated with increased productivity and sustained engagement. Conversely, persistent negative thought patterns can disrupt daily life and contribute to fatigue, stress, and despair. Such conditions may arise at any stage of life but are particularly common in early adulthood.

Mental health challenges are increasingly prevalent among young adults, particularly medical students, who face substantial academic and psychological pressures. This period of life is characterized by high demands in productivity, knowledge acquisition, and external responsibilities, factors that often lead to physical fatigue and emotional exhaustion.¹ First-year medical students are

especially vulnerable during the transition into a rigorous academic environment, placing them at increased risk to mental health conditions. This heightened vulnerability is largely driven by the intense demands of coursework, performance pressure, and the challenges of academic adjustment, which have made depression and anxiety particularly prevalent, prompting increased scholarly attention to this issue. The COVID-19 pandemic further exacerbated these problems, resulting in a notable increase in the prevalence of depression (46%), anxiety (47%), and stress (39%) among students during the pandemic compared to pre-pandemic levels.² A study conducted at the Faculty of Medicine, UIN Syarif Hidayatullah Jakarta, similarly showed that 30% of preclinical students experienced burnout³, 60% reported anxiety⁴, and 30% struggled with stress.⁵ Medical students are consistently shown to be at greater risk of psychological distress than their non-medical peers, particularly at the outset of their academic journey. According to findings by Prendergast et al., nearly one-third (30.8%) of first-year medical students experienced burnout, underscoring the psychological toll of adjusting from secondary education to the demands of medical school and its contribution to the high prevalence of mental health

issues in this population. Such conditions are frequently associated with sleep disruption, reduced concentration, and declining motivation, factors that can significantly impair academic engagement. Although mental health has been extensively studied among healthcare professionals, research targeting first-year medical students and their unique transitional challenges remains limited.⁶

Mental health is influenced by the interaction of biological, psychological, and socio-environmental domains. Within these domains, numerous factors, such as genetic predisposition, family background, interpersonal relationships, lifestyle habits, academic performance, and broader social determinants, including gender, ethnicity, socioeconomic background, marital status, and parental education, collectively contribute to shaping individuals' overall psychological state. Within the realm of medical education, students are exposed to substantial stressors: the intensive volume of material to be learned within constrained timelines, constant deadlines, frequent examinations, insufficient sleep, and competitive peer environments, all of which significantly impact their mental health.⁷⁻⁹

While psychological and environmental influences on medical students' mental health have been widely examined, the role of spirituality as a potential protective factor remains underexplored. Spiritual involvement may support emotional resilience and psychological functioning. According to Maazallahi et al. only 0.3% of medical students reported low levels of spiritual well-being, 84% reported moderate levels, and 15.7% reported high levels.¹⁰ Students with higher levels of spiritual engagement and regular spiritual practices tended to report greater life satisfaction, whereas those with limited engagement were more susceptible to mental health challenges. These findings point to spirituality's potential as a protective influence, particularly within high-stress environments such as medical education.¹¹⁻¹² In the context of Islamic practice, students who understand and participate in worship may develop adaptive coping mechanisms, such as gratitude, perseverance, and emotional flexibility, that support their mental health. Religious practices like *dhikr* (the continuous recitation of Allah's names and attributes) have been associated with lower anxiety levels, as repeated recitations can foster emotional regulation and cognitive stability.¹³ Through such spiritual disciplines, students may be better equipped to manage academic stress and emotional triggers. Despite these insights, limited research has investigated how memorizing the Al-Qur'an may influence psychological outcomes, particularly among medical students. As far as the authors are aware, no prior research has comprehensively explored the intersection between Qur'anic memorization, spirituality, and mental health in first-year medical students. Investigating this relationship is essential to understanding how faith-based practices may contribute to psychological resilience in academic settings. This study addresses that gap

by exploring whether memorization of the Al-Qur'an, a deeply spiritual act in Islamic tradition, is associated with improved spiritual well-being and mental health among first-year medical students. In light of rising burnout and anxiety levels globally, faith-integrated approaches may offer culturally sensitive, contextually relevant strategies for strengthening mental health support within medical education, particularly in Islamic academic institutions.

Purpose

This study aims to assess the correlation between Qur'anic memorization, spiritual experiences, and mental health among first-year medical students. The analysis draws on the Daily Spiritual Experiences Scale (DSE) and the General Health Questionnaire-12 (GHQ-12) to assess whether spiritual practices contribute to students' psychological well-being. The findings are expected to inform faith-integrated and culturally relevant coping strategies to support students in managing academic stress more effectively within medical education.

METHODS

Research Design

This research employed a descriptive-analytical approach with a cross-sectional design, aiming to investigate the relationship between spirituality and mental health among students in their initial year of medical training.

Sampling and Study Population

Participants were selected from 115 first-year medical students enrolled at the Faculty of Medicine, UIN Syarif Hidayatullah Jakarta. A convenience sampling technique was employed, as students were easily accessible during regular academic sessions. Participation was voluntary, and only those who provided consent and returned complete responses to both questionnaires were included in the study. Incomplete submissions were excluded. This approach was considered appropriate for the exploratory design and the limited resources available.

Data Collection Instruments

The questionnaire gathered demographic information, including participants' age, sex, upper secondary education type, the extent of Qur'anic memorization, and current living accommodation.

Spirituality was measured using the Daily Spiritual Experiences Scale (DSE), a 16-item instrument adapted into Indonesian and validated for both reliability (Cronbach's alpha = 0.800) and construct validity.¹⁴

Mental health status was evaluated using the General Health Questionnaire-12 (GHQ-12), a widely used self-report screening instrument. This measure, also validated in the Indonesian context, has shown Cronbach's alpha values

ranging from 0.67 to 0.77. Each item was rated on a 4-point Likert scale, generating a total score between 0 and 36, where higher scores indicate greater psychological burden. A cut-off point of 11 was used to categorize respondents into groups with either a positive or a negative mental state.¹⁵

Procedures

Participants were informed about the research aims, their right to confidentiality, and the voluntary nature of their participation. Written informed consent was obtained before participation. All responses were anonymized and used exclusively for academic analysis in alignment with ethical research standards.

Data Analysis

All analyses were conducted using SPSS version 25. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were employed to summarize participant characteristics and study variables. The Kolmogorov-Smirnov test was used to assess data normality. Due to the non-normal distribution, Spearman's rank correlation was applied to evaluate the associations between mental health and spirituality. The Chi-square tests examined associations among categorical variables. To analyze the relationship between spirituality and psychological distress, a simple linear regression was conducted. Psychological distress, measured by the General Health Questionnaire-12 (GHQ-12), was entered as the dependent variable, while spirituality, assessed through the Duke University Religion Index (DSE), was used as the predictor. Before the regression, the underlying assumptions were verified: linearity was checked through scatter plots, normality of residuals was assessed using distribution plots, and homoscedasticity was confirmed through residual

analyses. Since only one independent variable was examined, multicollinearity was not a concern. Statistical significance set at $p < 0.05$.

ETHICAL APPROVAL

Participants were fully informed about the objectives of the study, the measures taken to ensure confidentiality, and their right to withdraw from the study at any time. Informed consent was obtained before participation, ensuring voluntary participation. All data were anonymized and used exclusively for research purposes, following ethical guidelines. This study has obtained an ethical clearance letter from the Research Ethics Committee, Faculty of Medicine, UIN Syarif Hidayatullah Jakarta, with the number B-045/F12/KEPK/TL.00/12/2022.

RESULTS

Participant Characteristic

Of the 115 first-year medical students invited, a total of 92 completed the questionnaire, resulting in a response rate of approximately 80%. The sample was predominantly female (66.3%, $n = 61$), with most participants aged 18 years ($n = 59$, 64.1%). Over half resided in private lodging facilities (56.5%) and had graduated from government-operated upper secondary schools (50%, $n = 46$). Concerning Qur'anic memorization, the majority had either memorized only short surahs (43.5%, $n = 40$) or between one to five sections/juz (40.2%, $n = 37$), while only a small number (4.3%, $n = 4$) had memorized between 26 and 30 sections. A complete demographic profile is presented in Table 1.

Table 1. Profile of Respondents (N = 92)

| Measured Constructs | Category | n (%) |
|-----------------------------|--|-----------|
| Sex | Man | 31 (33.7) |
| | Woman | 61 (66.3) |
| Age (years) | Seventeen | 6 (6.5) |
| | Eighteen | 59 (64.1) |
| | Nineteen | 23 (25) |
| | Twenty | 4 (4.3) |
| | | |
| Type of Accommodation | Private lodging facility | 52 (56.5) |
| | Institutional residence hall | 24 (26.1) |
| | Parental home | 0 (0) |
| | Residence of a sibling | 13 (14.1) |
| | Leased private residence | 3 (3.3) |
| Upper secondary school type | Government-operated upper secondary school | 46 (50) |
| | Independent upper secondary school | 13 (14.1) |
| | Islamic upper secondary school (Aliyah) | 20 (21.7) |
| | Islamic residential educational school | 13 (14.1) |

| | | |
|-----------------------------|--------------------------------------|-----------|
| Qur'anic Memorization (Juz) | None | 2 (2.2) |
| | Partial memorization of short surahs | 40 (43.5) |
| | Memorized 1 to 5 sections | 37 (40.2) |
| | Memorized 6 to 10 sections | 6 (6.5) |
| | Memorized 11 to 15 sections | 1 (1.1) |
| | Memorized 16 to 20 sections | 0 (0) |
| | Memorized 21 to 25 sections | 2 (2.2) |
| | Memorized 26 to 30 sections | 4 (4.3) |

Mental Health and Spirituality

Among the participants, 46.7% (n = 43) exhibited a positive mental state, while 53.3% (n = 49) were identified as having a negative mental state. In terms of spirituality, the majority (80.4%, n = 74) exhibited a limited level of spirituality. Table 2 summarizes these distributions. The mean mental health score was 12.45 ± 6.3 , with scores ranging from 2 to 31, while the mean spirituality score was 29.27 ± 12.2 , ranging from 9 to 65. A strong and statistically significant positive correlation was observed between spirituality and mental health scores ($r = 0.99, p < 0.001$), indicating that higher spirituality was associated with more favorable mental states. However, there was no significant association between the number of Qur'anic sections memorized and spirituality ($p = 0.637$) or mental health status ($p = 0.372$) as

detailed in Tables 3 and 4. These findings imply that while spiritual engagement may contribute to improved psychological well-being, the extent of Qur'anic memorization alone does not strongly predict mental or spiritual outcomes within this cohort.

Table 2. Overview of statistical measures for mental health and spirituality

| Measured Constructs | Category | n (%) |
|---------------------|-----------------------|-----------|
| Mental health | Positive Mental State | 43 (46.7) |
| | Negative mental state | 49 (53.3) |
| Spirituality | Limited | 74 (80.4) |
| | Moderate | 18 (19.6) |
| | Enhanced | 0 (0) |

Table 3. Association between spirituality level and Qur'anic memorization

| Spirituality | The quantity of memorized Qur'anic sections | | | Total | p* |
|--------------|---|-----|----|-------|-------|
| | <1 | 1-5 | >5 | | |
| Limited | 35 | 28 | 11 | 74 | 0.637 |
| Moderate | 7 | 9 | 2 | 18 | |
| Total | 42 | 37 | 13 | 92 | |

*Chi-square test

Table 4. Association between mental health status and Qur'anic memorization

| Mental health status | The quantity of memorized Qur'anic sections | | | Total | p* |
|-----------------------|---|-----|----|-------|-------|
| | <1 | 1-5 | >5 | | |
| Positive mental state | 20 | 23 | 6 | 74 | 0.372 |
| Negative mental state | 22 | 14 | 7 | 43 | |
| Total | 42 | 37 | 13 | 92 | |

*Chi-square test

DISCUSSION

The predominance of female participants in this study aligns with broader patterns observed in medical education both within Indonesia and globally.¹¹⁻¹³ This gender distribution is consistent with previous research showing higher enrollment rates among women in medical faculties. Moreover, mental health disorders are most prevalent among individuals aged 15 to 35,¹⁴ highlighting the importance of early risk identification. Given that most participants were 18 years old, this underscores the urgency of early

intervention strategies tailored to first-year students to help mitigate long-term psychological distress.

The relatively small proportion of participants who had memorized extensive portions of the Al-Qur'an may reflect differences in educational background, particularly attendance at government-operated upper secondary schools where religious education tends to be less emphasized. Qur'anic memorization is often rooted in spiritual commitment and integrated into daily routines as an act of devotion to Allah SWT. Beyond its spiritual value, this practice is also believed to enhance cognitive capacity, with

sustained engagement in memorization contributing to intellectual development. Notably, some medical schools in Indonesia recognize the significance of this practice by offering admission advantages to prospective students who have memorized substantial portions of the Al-Qur'an.

The present study revealed an almost even distribution between students with positive and negative mental states, aligning with previous research that highlights the early onset of psychological distress during medical education. Similar patterns were reported by another study, which documented a high prevalence of mental health challenges among first-year medical students.¹⁶⁻¹⁸ Further supporting this, Panja et al. found that in India, 79% of first-year medical students experienced moderate to severe academic stress, while 88% reported moderate to high levels of stress from social factors.¹⁹ In a longitudinal study, Mallaram et al. utilized the DASS-21 to monitor 154 students and noted a significant increase in anxiety and depression symptoms within the initial six months of training.²⁰ These findings collectively underscore an urgent need for early mental health intervention, particularly through structured institutional support systems. Establishing tailored wellness programs and psychological services is essential, not only to address immediate concerns but also to strengthen resilience throughout the medical education.

The transition into medical school represents a significant psychological adjustment for many first-year students, often resulting in elevated stress levels and negative mental states. The abrupt shift from secondary education to the rigorous demands of medical education increases academic pressure, as students must exert greater effort to maintain their previous achievements. This adjustment period can be particularly challenging, with students frequently reporting emotional exhaustion, difficulty managing time, and limited opportunities for rest or recreation. Exam periods often amplify these stressors, contributing to feelings of isolation and a disrupted work-life balance. While social interactions may provide emotional relief, they can also introduce external pressures that compound stress. Personality traits play a critical role in how students perceive and respond to academic demands. Those with high conscientiousness may feel greater internal pressure to perform, while students with competitive tendencies often struggle with the fear of losing their academic standing. Moreover, coping strategies significantly influence psychological outcomes. Students who primarily rely on emotion-focused strategies may be more susceptible to psychological strain and reduced resilience.¹¹⁻²⁰

A large proportion of the respondents exhibited limited levels of spirituality, which may reflect their developmental stage as young adults. During this period, spiritual identity is still evolving, and many students may not yet have fully integrated spiritual practices into their daily lives. Family

influence also plays a critical role in shaping spiritual development, as familial and home environments often serve as early spaces for fostering a personal connection with God. In addition, cultural and social factors, including exposure to secular or religious environments, further influence individuals' values, beliefs, and spiritual engagement. These findings align with Maazallahi et al., who reported that most medical students exhibited moderate spirituality, with only a minority demonstrating higher levels.¹⁰

Our findings revealed a strong and positive association between enhanced spirituality and mental health ($r = 0.99$, $p < 0.001$), suggesting that first-year medical students with greater spiritual engagement were more likely to maintain psychological well-being. These results are consistent with prior research demonstrating that increased spirituality is often linked to reduced academic stress and improved emotional outcomes. For instance, Rena reported a significant negative correlation ($r = -0.123$, $p = 0.00$) between spirituality and academic stress, indicating that students with stronger spiritual practices tend to experience lower stress levels.²¹ Similar trends were identified in a study conducted in KwaZulu-Natal, where increased levels of spirituality among medical students were linked to better overall quality of life and fewer symptoms of depression.²² In another investigation, Rahmadany et al., identified a modest yet meaningful link ($r = 0.179$, $p = 0.037$) between spirituality and happiness, accounting for 17.9% of the variance in happiness scores.²³ Although this relationship was modest, it reinforces the potential role of spirituality in promoting positive mental states. In contrast to studies emphasizing happiness or stress reduction, our findings suggest that spirituality may exert a more direct and substantial influence on overall mental health. This highlights the broader psychological benefits of spirituality, beyond temporary emotional states. Spirituality has been shown to buffer the psychological effects of stress and contribute to improved emotional regulation. Higher levels of daily spiritual experiences have been associated with greater life satisfaction, lower psychological distress, and reduced risk of burnout.¹¹ Cultivating spiritual depth may help mitigate or even prevent stress and depression, providing individuals with a sense of hope and purpose in challenging times. In line with this, higher levels of spiritual engagement have consistently been associated with favorable mental health indicators. Students with a stronger spiritual foundation often report greater success in managing psychological challenges. Consistent with these observations, Abdolkarimi et al. found that individuals with stronger spiritual engagement also exhibited significantly higher levels of happiness.²⁴ Similarly, a comparative study in Turkey revealed that elevated spirituality among medical students was strongly tied to improved psychological well-being, resilience, and life satisfaction. In contrast, our findings, indicating low spirituality levels among most

participants, suggest a possible increase in vulnerability to psychological distress, burnout, and reduced resilience. These differences highlight the potential value of strengthening spiritual engagement in medical education, particularly in high-stress environments. Students who prioritize spiritual or religious practices often report better psychological outcomes, implying that spirituality can function as a protective factor within the context of medical training. As supported by Akbayram & Keten, integrating spirituality into medical education may not only support individual well-being but also cultivate empathy and compassion in future healthcare professionals.²⁵ Within spiritual and religious practice, it is useful to distinguish between positive and negative emotional experiences. Positive states such as gratitude, admiration, affection, and a sense of control are often strengthened through spiritual engagement, which in turn may foster psychological stability and inner peace. Framing life challenges through a spiritual perspective can therefore serve as a protective resource, enabling students to cope more effectively with stress and uncertainty.¹² Given the consistent evidence linking spirituality with improved mental health, medical schools are encouraged to incorporate spiritual well-being initiatives into student support services. Such holistic approaches may enhance psychological resilience and provide healthier coping strategies for both academic demands and personal challenges.

No statistically significant relationship was observed between the Qur'anic memorization and either spirituality ($p = 0.637$) or mental health ($p = 0.372$). This suggests that memorization alone, when not accompanied by reflection or internalization, may not lead to psychological benefits. The quality and depth of spiritual engagement, rather than the quantity of memorized verses, appear to be more important in supporting mental well-being. The Al-Qur'an is widely regarded in Islam as a remedy for both emotional and physical afflictions, offering guidance and healing for believers. As emphasized in QS Yunus [10]:57: "O humanity! Indeed, there has come to you a warning from your Lord, a cure for what is in the hearts, a guide, and a mercy for the believers" and further echoed in QS Fussilat [41]:44: "The Qur'an is a guidance and a cure for people who believe." Accordingly, consistent reading and reflection on the Qur'an, beyond memorization, may provide more profound spiritual experiences. The practice of *dhikr* (remembrance of God) through Qur'anic recitation can foster a stronger connection with Allah. In this context, spiritual depth becomes a more accurate indicator of closeness to God than the extent of memorization. Although religiosity and spirituality are conceptually distinct, they often overlap. Religiosity typically refers to adherence to structured belief systems and rituals, while spirituality reflects a more personal, existential quest for meaning, which may or may not align with formal religious doctrine. Spiritual well-being, therefore, is not solely dependent on ritual observance

but is shaped by one's intrinsic connection to faith and meaning.¹¹ The study by Akbayram & Keten illustrates that students who prioritize broader religious and spiritual practices often report greater well-being and resilience.²⁵ In the context of our findings, the act of memorizing the Al-Qur'an, an immersive and spiritually meaningful endeavor, could similarly foster a sense of purpose, social connectedness, and psychological support among students. However, if most students are not actively engaging in these practices or lack motivation, they may lack sufficient psychological resources to cope with the rigors of medical education. While both studies affirm the crucial role of spirituality in supporting mental well-being, our findings suggest that specific forms of engagement, such as Qur'anic memorization, may offer unique benefits. Strengthening support for such religious practices within the academic environment could contribute to building a more resilient and well-adjusted student body. Previous research has indicated that deep, intrinsic religious commitment is more strongly associated with psychological well-being than formal or extrinsic religious involvement. Individuals who practice their faith out of genuine personal conviction and seek a meaningful connection with God tend to exhibit better psychological well-being than those whose religious participation is driven by social or external motivations. This is supported by findings from Joshanloo, which revealed only a modest positive association between religiosity and psychological well-being at the inter-individual level, suggesting that variations in religious engagement across individuals do not necessarily correspond with changes in mental health status over time, nor does mental health consistently predict shifts in religiosity.²⁶ Future investigations should examine whether practices such as reflective recitation or mindfulness-based engagement with the Qur'an contribute more meaningfully to resilience and mental health outcomes.

Despite its contributions, this study has certain limitations. Its cross-sectional design limits the ability to draw causal inferences between spirituality and mental health. To clarify potential directional effects, longitudinal research is warranted to determine whether increased spiritual engagement over time leads to sustained improvements in mental health. Self-reported data are susceptible to bias, reinforcing the value of future research that incorporates objective or mixed-method approaches. Additionally, conducting this study within a single academic setting may restrict the extent to which its findings can be applied to broader populations. To gain a more comprehensive understanding of how spirituality relates to mental health across different contexts, future studies should recruit participants from a variety of institutions and cultural backgrounds.

CONCLUSION

This study highlights the psychological vulnerability of first-year medical students, particularly among those with limited spirituality. Enhancing medical education through improved learning environments, individualized psychological support, and resilience-building initiatives is essential. These findings emphasize the importance of efforts aimed at helping students cultivate deeper personal values and a clearer sense of direction, while fostering lasting hope and optimism, key elements in improving mental health outcomes. The strong correlation between spirituality and mental health suggests that nurturing spiritual well-being may act as a buffer against emotional strain. Integrating spiritual development into the medical curriculum could offer meaningful, culturally relevant strategies to support students' overall well-being.

IMPLICATION

This study suggests that strengthening spiritual engagement may help reduce psychological distress among first-year medical students. Embedding spirituality-focused initiatives, such as reflective practices and faith-sensitive counseling, into medical training could enhance student resilience and promote professional empathy.

STRENGTHS AND LIMITATIONS

The study used standardized, validated instruments (DSE and GHQ-12), which supports the reliability of the findings. Focusing on first-year medical students provided insights into a group at high risk of early psychological strain. However, the cross-sectional design limits causal interpretation, self-reported data may involve bias, and the single-site, convenience sample reduces broader applicability. Future studies should employ longitudinal and multi-institutional designs.

CONFLICT OF INTEREST

The authors declare no conflicts of interest in relation to this research.

ACKNOWLEDGMENTS

The authors thank the Faculty of Medicine, UIN Syarif Hidayatullah Jakarta, for granting ethical approval and support, as well as the students who voluntarily participated.

DECLARATION OF USING AI

Artificial intelligence tools were applied for grammar improvement. The authors reviewed and verified all content to ensure accuracy and integrity in line with the journal's guidelines on AI use.

FUNDING SOURCES

The study received no external financial support from governmental, commercial, or nonprofit organizations.

REFERENCES

1. Wibowo S, Nofalia I. Spiritual well-being with life quality of lung tuberculosis patients. *J Keperawatan Trop Papua*. 2024;7(1):1–7.
2. Setyawati E, Subhan DH, Yusnita Y. Differences in mental health status of Yarsi University medical faculty students class of 2019 before and during the Covid-19 pandemic. *Semin Nas Ris Kedokt*. 2021;2(1):193–204.
3. Jannah F. Description of Student Identity Against Burnout Incidents in Preclinical Students for Class of 2018, 2019, and 2020 Faculty of Medicine Uin Syarif Hidayatullah Jakarta [Internet]. Thesis Faculty of Medicine, UIN Syarif Hidayatullah Jakarta. 2022. Available from: <https://repository.uinjkt.ac.id/dspace/handle/123456789/64336>
4. Wardhani AA. The Relationship Between Anxiety Levels and Diet in Preclinical Students of the Faculty of Medicine, Syarif Hidayatullah State Islamic University Jakarta Class of 2020 [Internet]. Thesis Faculty of Medicine UIN Syarif Hidayatullah Jakarta. 2021. Available from: <https://repository.uinjkt.ac.id/dspace/handle/123456789/64329>
5. Jusman AA. The Relationship of Stress Levels to Learning Motivation in First Year Students [Internet]. Thesis Faculty of Medicine UIN Syarif Hidayatullah Jakarta. 2020. Available from: <https://repository.uinjkt.ac.id/dspace/handle/123456789/64172>
6. Prendergast M, Cardoso Pinto AM, Harvey CJ, Muir E. Burnout in early year medical students: experiences, drivers and the perceived value of a reflection-based intervention. *BMC Med Educ* [Internet]. 2024;24(1):1–11. Available from: <https://doi.org/10.1186/s12909-023-04948-0>
7. Belfiore CI, Galofaro V, Cotroneo D, Lopis A, Tringali I, Denaro V, et al. A Multi-Level Analysis of Biological, Social, and Psychological Determinants of Substance Use Disorder and Co-Occurring Mental Health Outcomes. *Psychoactives*. 2024;3(2):194–214.
8. Peng P, Hao Y, Liu Y, Chen S, Wang Y, Yang Q, et al. The prevalence and risk factors of mental problems in medical students during COVID-19 pandemic: A systematic review and meta-analysis. *J Affect Disord*. 2023;321(October 2022):167–81.
9. Stubbing J, Rihari T, Bardsley A, Gluckman P. Exploring factors influencing youth mental health: What we know and don't know about the determinants of young people's mental health Koi Tû Report. 2023;(July). Available from: <https://www.adobe.com/nz/acrobat/pdf-reader.html>

10. Maazallahi M, Ghonchepour A, Sohrabi M, Golestani Z, Parandeh Afshar P, Malakoutikhah A, et al. Spiritual Well-Being among Medical and Nonmedical Science Students. *Scientifica* (Cairo). 2021;2021.
11. David R, Singh S, Ribeiro N, Gomes DR. Does Spirituality Influence Happiness and Academic Performance? *Religions*. 2022;13(7):1–15.
12. Leung CH, Pong HK. Cross-sectional study of the relationship between the spiritual wellbeing and psychological health among university students. *PLoS One* [Internet]. 2021;16(4 April):1–19. Available from: <http://dx.doi.org/10.1371/journal.pone.0249702>
13. Daryono MY. The Relationship between the Intensity of Dzikir and the Anxiety Level of Preclinical Students, Faculty of Medicine, Uin Syarif Hidayatullah Jakarta. Thesis, Faculty of Medicine, UIN Syarif Hidayatullah Jakarta. 2021.
14. Kharissa VD. The Relationship Between Daily Spiritual Experience and Psychological Well-Being in Parents of Children with Special Needs. 2019.
15. Rahmayanthi D, Moeliono MF, Kendhawati L. Adolescents' Mental Health During COVID-19 Pandemic. *J Ilm Psikol* [Internet]. 2021;23(1):91–101. Available from: <http://ejurnal.mercubuana-yogya.ac.id/index.php/psikologi/article/view/1417>
16. Lili R, Molodynski A, Farrell SM, Citraningtyas T, Klopung NA. Wellbeing and mental health among medical students in Indonesia: A descriptive study. *Int J Soc Psychiatry*. 2022;68(6):1277–82.
17. Lusiantari R, Pramaningtyas MD, Widyaningsih N, Khoiriyah U. Psychological Conditions of Undergraduate Students of Faculty of Medicine, Universitas Islam Indonesia During Pandemic Covid-19. *Proc Int Conf Med Educ (ICME 2021)*. 2021;567(Icme):305–9.
18. Stephanie M, Surjadi C. the Mental Health of First- and Final-Year Preclinical Medical Students. *J Pendidik Kedokt Indones Indones J Med Educ*. 2020;9(3):291.
19. Panja S, Dhali A, Avinash B, Chattopadhyay M, Bhowmick K, Biswas J. Psychological Stress Experienced by First-Year Medical Undergraduates: A Cross-Sectional Study From Eastern India. *Cureus*. 2023;15(10):1–6.
20. Mallaram GK, Gopalakrishnan U, Mathews DA, Mudamala DS, Gangavarappagari H, Modi U, et al. Stress, Anxiety, and Depression in the First-year Students of Medical Education: A Prospective Cohort Study from a Women's Medical College in South India. *Indian J Psychol Med*. 2023;XX(X):1–7.
21. Rena S. The Relationship between Spirituality and Stress: A Study of Medical Students at Islamic Universities in Jakarta. *J Pendidik Agama Islam*. 2023;20(2):181–94.
22. Pillay N, Ramlall S, Burns JK. Spirituality, depression and quality of life in medical students in KwaZulu-Natal. *South African J Psychiatry*. 2016;22(1):1–6.
23. Rahmadany MF, Munawaroh S, Hastami Y, Wiyono N. How Does Spirituality Increase the Happiness of Medical Students? *Psikoislamika J Psikol dan Psikol Islam*. 2024;21(1):108–17.
24. Abdolkarimi M, Masoomi M, Lotfipour SS, Zakeri MA. The relationship between spiritual health and happiness in medical students during the COVID-19 outbreak: A survey in southeastern Iran. *Front Psychol*. 2022;13(August):1–10.
25. Akbayram HT, Keten HS. Psychological Well-Being, Psychological Resilience, Life. *J Relig Health*. 2024;63:2847–59.
26. Joshanloo M. No evidence of longitudinal association between religiosity and psychological well-being: Challenging prevailing assumptions. *J Pacific Rim Psychol*. 2024;18.