

When Worship is Not Enough: *Muraqabah* as a Psychospiritual Mediator between *Tahajjud* Prayer Reverence and Academic Stress Among Online Students

*Metty Hidayanthi¹, Evi Afifah Hurriyati²

¹Department of Psychology and Islamic Counselling, International Open University, Gambia

²Department of Psychology, Faculty of Humanities, Universitas Bina Nusantara, Indonesia

*Corresponding email: metty.hidayanthi@student.iou.edu.gm

ABSTRACT

Academic stress phenomena have significantly increased among university students in the post-pandemic era, primarily due to online learning systems that impose new psychological pressures. This study aims to analyze the role of *muraqabah* as a psychospiritual mediator in the relationship between *Tahajjud* prayer reverence (*khushu'*) and academic stress among online learners. The research employs a non-experimental quantitative approach with a correlational design and path analysis. The sample consists of 102 students obtained through convenience sampling. Research instruments include the Measure of Reverence in Muslim Prayer Short-Form (MRMP-SF), the *Muraqabah* Scale, and the Perceptions of Academic Stress (PASS) scale. Data analysis was conducted using the Hayes PROCESS Macro Model 4 with a bootstrapping method of 5,000 iterations. The results indicate that *Tahajjud* prayer reverence does not have a direct effect on reducing academic stress ($p > .05$). However, it exerts a significant indirect effect through the enhancement of *muraqabah* ($\beta = 0.65, p < .001$). Consequently, a full mediation model is established, demonstrating that psychological tranquility in students is not achieved solely through ritual worship, but through the internalization of profound spiritual awareness regarding Allah's surveillance. This study implies that integrating psychospiritual elements into student support systems may provide a more robust framework for stress mitigation in digital learning environments.

ARTICLE HISTORY

Received 05 03 2026

Revised 23 07 2026

Accepted 28 07 2026

KEYWORDS

muraqabah; reverence of *Tahajjud* prayer; academic stress; psychospiritual; online students

INTRODUCTION

The transition to digital learning systems has brought significant psychological consequences for university students worldwide. Recent studies indicate that remote learning models have escalated the risk of academic stress due to heavy workloads, limited social interaction, domestic environmental distractions, and digital fatigue (Aristovnik et al., 2020; Coman et al., 2020). Academic stress arises when academic demands are perceived to exceed an individual's resources to cope, leading to emotional distress, exhaustion, and a decline in learning motivation (Rokayah et al., 2022). If chronic, this condition potentially evolves into burnout and severely diminishes students' psychological well-being.

From a psychological perspective, stress is understood as the result of an appraisal process where a situation is evaluated as threatening or surpassing an individual's capacity (Folkman et al., 1986). Consequently, coping strategies become a vital factor in determining stress levels. One extensively studied form is spiritual coping—the utilization of religious beliefs and practices to attain meaning,

emotional tranquility, and self-regulation in the face of pressure (Pargament, 2011; Folkman, 2013). This approach enables individuals to perceive stress not only as a threat, but also as a meaningful component of personal growth and spiritual reverence.

In the Islamic context, worship possesses a unique spiritual coping dimension. *Tahajjud* prayer, a voluntary midnight prayer performed in the last third of the night, holds reflective and contemplative characteristics that support emotional regulation and inner peace. Research has demonstrated that the practice of prayer correlates with physiological relaxation and stress reduction (Doufesh et al., 2016) and students who regularly perform *Tahajjud* tend to report lower stress levels (Wahyu Rahmanto et al., 2023). The explanation of the research design tends to be repetitive. The author may consider simplifying the description to improve clarity and readability.

However, the effectiveness of worship is not solely determined by its frequency. The quality of performance, specifically *khushu'* (reverence), serves as the primary determinant of its psychological impact (Matin, 2018). *Khushu'* reflects full-hearted involvement and psychological mindfulness during worship, characterized by focused attention, behavioral control, and deep humility before the Divine (Aldahadha, 2023). At this juncture, the internal dimension of worship becomes crucial. A central concept in Islamic tradition is *muraqabah*—the continuous awareness of Allah's presence and surveillance (Al-Ghazali, 2020). In contemporary Islamic psychology, *muraqabah* is understood as a psychospiritual construct that can be operationalized as a form of self-regulation based on transcendental consciousness (Badri, 2018).

Research Gap and Objectives

Extensive literature has established a significant link between religiosity and academic stress among university students, demonstrating that religious practices often serve as an effective coping mechanism against educational pressures (e.g., Aristovnik et al., 2020; Rokayah et al., 2022). However, these studies predominantly evaluate religiosity through surface-level indicators, such as the frequency of ritual execution or generalized religious orientations. Furthermore, recent empirical evidence has begun to explore the role of spiritual awareness as a mediator in psychological well-being, suggesting that internal spiritual mechanisms can buffer the impact of external stressors (e.g., Pargament, 2011). In Islamic psychospirituality, previous research indicates a robust positive relationship between the quality of ritual performance, specifically *Tahajjud* prayer reverence (*khushu'*), and the cultivation of heightened spiritual vigilance (*muraqabah*) (e.g., Rahmanto et al., 2023). Concurrently, higher levels of *muraqabah* have been shown to correlate with lower anxiety and psychological strain, as it fosters emotional stability and cognitive clarity (Susanty & Hawadi, 2020).

Despite these foundational insights, research explicitly examining the integrated mechanism of how the internal *quality* of worship (*khushu'*) influences academic stress through the specific mediator of *muraqabah* remains limited, particularly within the challenging context of online students. Theoretically, *muraqabah* possesses the unique potential to modify the cognitive appraisal process of academic burdens. Through the lens of Transactional Stress Theory (Folkman & Lazarus, 1986), this transcendental awareness shifts the student's cognitive appraisal; thus, academic pressure is no longer perceived merely as a distressing threat, but as a divine mandate (*amanah*) and a broader act of reverence.

Consequently, this study aims to address this empirical gap by analyzing the psychospiritual mediation model of *muraqabah* in the relationship between *Tahajjud* prayer reverence and academic stress among online learners.

METHOD

Design

This study employs a non-experimental quantitative approach with a correlational path analysis design. This design was selected to evaluate the proposed psychospiritual model by precisely differentiating the direct and indirect effects of *Tahajjud* prayer reverence (*khushu'*) on academic stress through the mediating role of *muraqabah*.

Participants

The participants in this study consisted of 102 university students currently engaged in online or hybrid learning environments. The sample was recruited using a convenience sampling technique, targeting students who regularly perform *Tahajjud* prayer. Inclusion criteria for the participants were: (1) active undergraduate students, (2) currently enrolled in online-based courses, and (3) practicing *Tahajjud* prayer as part of their spiritual routine. The sample size of 102 was deemed statistically adequate and robust based on established multivariate and mediation analysis guidelines. First, according to Hair et al. (2019), the general rule of thumb for multivariate analysis suggests a minimum ratio of 10 to 20 respondents per research variable. Given the three primary variables in this study (*Tahajjud* prayer reverence, *muraqabah*, and academic stress), a minimum of 60 participants was required to prevent operational technical errors. Second, to ensure sufficient statistical power ($\geq .80$) for detecting the indirect mediation effect and to minimize the risk of a Type II error, Cohen (2016) recommends a sample size ranging between 100 and 200 participants for path analysis and Hayes' PROCESS Macro models. Therefore, the final sample of 102 participants falls well within this optimal range, ensuring both the stability of the model parameters and adequate statistical precision.

Procedures

The overall research flow was executed through three systematic phases: preparation, data administration, and analytical filtering. The preparatory phase focused on ethical alignment, where participants were fully briefed on the study's scientific objectives, data confidentiality, and anonymity. The data administration phase involved distributing the digital psychometric battery via an online survey platform. Participants were required to complete an informed consent verification before accessing the instrument. Finally, the analytical phase began with a strict screening protocol to evaluate response completeness and data validity, ensuring that only high-integrity observations advanced to the structural path analysis stage.

Measurements

Three validated instruments were utilized to assess the research variables, with all items rated on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Tahajjud Prayer Reverence (X) *Tahajjud* prayer reverence (*khushu'*) was measured using a modified version of the Measure of Reverence in Muslim Prayer (MRMP) originally developed by Aldahadha (2023). For the purpose of this study, the instrument was refined by the researcher into a 17-item Short Form (MRMP-SF) based on Classical Test Theory (CTT), selecting items with factor loadings > 0.5 . The MRMP-SF evaluates four core dimensions: heart submission and humility, focused attention, meaningfulness, and behavioral control during prayer. It captures the quality of concentration through indicators such as tranquility (*thumaninah*), understanding (*taffahum*), and glorification (*ijal*). A sample item from this scale is [*"I feel deep tranquility and peace when performing the Tahajjud prayer"*]. In the present study, the instrument demonstrated excellent internal consistency, with a Cronbach's alpha coefficient of $\alpha = .886$.

Muraqabah (M) *Muraqabah* was operationalized using the Muraqabah Questionnaire adapted from Susanty and Hawadi (2020). This 18-item scale evaluates the internal consciousness of divine supervision across three primary dimensions: obedience (*ta'at*), disobedience (*ma'shiyat*), and permissible acts (*mubah*). These dimensions integrate behavioral habits, cognitive awareness, and affective states of spiritual vigilance, reflecting indicators such as academic honesty and self-vigilance in learning intentions. A sample item includes [*"I maintain academic honesty because I believe Allah is constantly watching my actions"*]. The scale yielded high reliability in this target population, with a Cronbach's alpha coefficient of $\alpha = .898$.

Academic Stress (Y) Academic stress was assessed using the Perceptions of Academic Stress (PASS) scale developed by Bedewy and Gabriel (2015). This 18-item instrument measures students' subjective perceptions of academic pressure within the online learning environment across three dimensions: academic expectations, workload and examinations, and academic self-perceptions. It effectively identifies physiological, cognitive, and affective symptoms of stress resulting from excessive screen interaction and digital demands. A sample item from this instrument is [*"The heavy workload and frequent examinations in online classes make me feel overwhelmed"*]. The instrument showed robust internal reliability in this study, with a Cronbach's alpha coefficient of $\alpha = .877$.

Data Analysis

Data analysis was performed using SPSS supplemented by the PROCESS Macro (Version 4.2) developed by Hayes (2018). Specifically, Model 4 was executed to rigorously test the psychospiritual mediation effect of *muraqabah* on the relationship between *Tahajjud* prayer reverence and academic stress. To ensure the robustness and stability of the parameter estimates, a bootstrapping method with 5,000 iterations was applied to generate 95% bias-corrected confidence intervals (CI) for the indirect effect. Statistical significance for the direct paths was determined based on a p -value of $< .05$. For the indirect mediation effect, significance was established if the 95% bootstrap confidence interval (LLCI and ULCI) did not include zero, indicating a non-zero effect.

RESULTS

Participant Characteristics

The study involved 102 active Muslim university students currently engaged in online learning, selected via convenience sampling. The sample was heavily dominated by female respondents (85.3%, $n = 87$), while males accounted for 14.7% ($n = 15$). In terms of institutional affiliation, the vast majority of participants were registered at the IOU Bahasa campus (83.33%, $n = 85$), with 1.96% ($n = 2$) from the IOU English campus, and 14.71% ($n = 15$) from other institutions. Regarding their current educational level, more than half of the participants were undergraduate students (57.84%, $n = 59$), followed by senior high school-level students (35.29%, $n = 36$), and diploma students (6.86%, $n = 7$).

Descriptive Statistics and Assumptions Testing

Descriptive analysis revealed that the participants reported a moderate level of academic stress ($M = 32.58, SD = 8.65$) within the online learning environment. Regarding the psychospiritual variables, the participants exhibited relatively high average scores for both *Tahajjud* prayer reverence ($M = 67.29, SD = 9.76$) and *muraqabah* ($M = 71.69, SD = 8.84$).

Prior to conducting the main path analysis, all statistical assumptions required for ordinary least squares (OLS) linear regression were rigorously tested and met. The residuals demonstrated a normal distribution ($p > .05$), and there was no threat of multicollinearity, as indicated by acceptable Variance Inflation Factor values ($VIF < 10$, tolerance $> .10$). Additionally, reliability tests confirmed excellent internal consistency across all adapted scales ($\alpha > .87$).

Hypothesis Testing: Mediation Analysis

To examine the hypothesized psychospiritual mediation model, a path analysis was performed using Hayes' PROCESS Macro (Model 4) with 5,000 bootstrap iterations.

Table 1 Direct and Indirect Effects of Khushu' (X) on Academic Stress (Y) via Muraqabah (M)

Relationship	Path	β	SE	t	p	95% BootCI (LL, UL)
Direct Effects						
Khushu' → Muraqabah	a	.651	.080	8.350	0	[.496, .806]
Muraqabah → Academic Stress	b	-.340	.140	-2.460	.016	[-.608, -.066]
Khushu' → Academic Stress	c	.198	.120	1.590	.115	[-.049, .445]
Total Effect						
Khushu' → Academic Stress	c	-.020	.090	-.250	.806	[-.198, .154]
Indirect Effect						
Khushu' → Muraqabah → Stress	ab	-.220	.100	—	—	[-.415, -.027]

Note. β for direct paths are unstandardized coefficients. BootCI results are based on 5,000 bootstrap samples. The mediation is significant as the 95% BootCI for the indirect effect does not cross zero.

The path analysis results presented in Table 1 revealed that *Tahajjud* prayer reverence significantly predicted higher levels of *muraqabah* (Path *a*: $\beta = 0.651, SE = 0.08, t = 8.35, p < .001$). In turn, *muraqabah* exerted a significant negative effect on academic stress (Path *b*: $\beta = -0.340, SE = 0.14, t = -2.46, p = .016$). However, when controlling for the mediator, the direct effect of *Tahajjud* prayer reverence on academic stress was statistically non-significant (Path *c'*: $\beta = 0.198, SE = 0.12, t = 1.59, p = .115$).

Critically, the assessment of the indirect pathway confirmed that the relationship between *Tahajjud* prayer reverence and academic stress was fully mediated by *muraqabah* (Path *ab*: $\beta = -0.220, BootSE = 0.10, 95\% BootCI [-0.415, -0.027]$). Because the 95% bias-corrected bootstrap confidence interval did not include zero, the indirect psychospiritual effect is statistically confirmed. The non-significance of the direct effect (*c'*), coupled with the significant indirect effect (*ab*), establishes a robust model of **full mediation**.

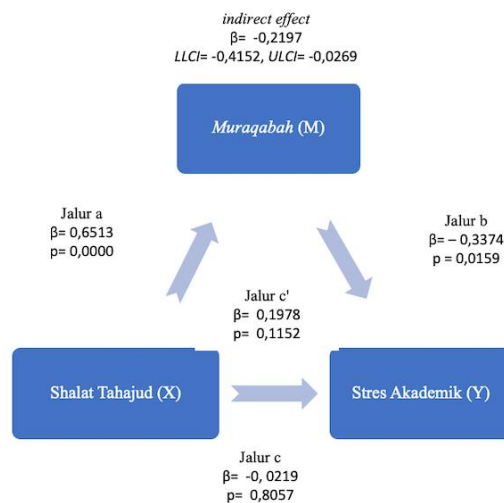


Figure 1. Coefficient of Mediation Path Between Variables

DISCUSSION

The present study investigated the psychospiritual mechanism through which *Tahajjud* prayer reverence (*khushu'*) influences academic stress among university students engaged in online learning. The empirical results demonstrate a full mediation model, wherein *Tahajjud* prayer reverence does not directly reduce academic stress but operates entirely through the enhancement of *muraqabah* (transcendental awareness).

The finding that *Tahajjud* prayer reverence significantly predicts *muraqabah* aligns with the classical framework of Al-Ghazali (2020), which posits that quality and internal depth in ritual worship lead to a heightened state of divine consciousness. However, the most striking result is the non-significant direct effect of reverence on academic stress. This suggests that performing ritual prayer, even with high internal devotion, is insufficient to mitigate the psychological pressures of online learning if it does not transform into a continuous state of spiritual mindfulness in daily life.

This mechanism directly addresses recent debates within Islamic psychology regarding the psychological outcomes of ritual practices. While some contemporary literature suggests a direct, therapeutic effect of nocturnal prayers on anxiety (e.g., Rahmanto et al., 2023), our findings extend this dialogue by revealing that the protective effect of *Tahajjud* is not automatic. Instead, it requires the structural mediation of transcendental cognitive framing. This finding supports and extends the Transactional Model of Stress and Coping (Folkman et al., 1986) into the realm of Islamic psychology. While Folkman emphasizes secular cognitive appraisal, our findings suggest that *muraqabah* serves as a "psychospiritual reappraisal" mechanism. When students internalize the feeling of being observed by Allah, their perception of academic demands shifts; the external pressure is no longer appraised merely as a distressing threat, but as a divine mandate (*amanah*) and a broader act of reverence. This aligns with Badri (2018), who argues that transcendental self-regulation provides a stable emotional anchor that structural rituals alone may not achieve.

The contemporary context of online learning introduces unique stressors such as digital fatigue and social isolation. In this challenging environment, *muraqabah* acts as a continuous internal monitoring system that fosters psychological resilience during daily routines. Previous studies have heavily documented the generalized benefits of religiosity on student mental health, yet they frequently overlook the operational pathways (e.g., Rokayah et al., 2022). Our study clarifies the exact *how*—it is the enduring spiritual awareness developed during the night that actively protects the student during the psychological trials of the day. This provides a critical nuance to psychological literature: the internalization and cognitive extension of the ritual, rather than the mere frequency of ritual execution, determines psychological well-being outcomes in high-stress digital environments.

Contribution to Psychology Science

This research offers substantial contributions to both Islamic psychology and health psychology by establishing empirical evidence for a specific psychospiritual pathway in stress management. Theoretically, it offers a more nuanced, sophisticated understanding of spiritual coping by identifying *muraqabah* as the psychological bridge that translates deep ritualistic behavior into active, daily well-being. Methodologically, by utilizing Hayes' PROCESS Macro path analysis, this study moves beyond simple, static bivariate correlations. It offers a robust explanatory model illustrating how transcendental variables interact dynamically to buffer environmental strain within a digital education context.

Limitations and Future Directions

Despite its empirical and theoretical contributions, several limitations must be acknowledged. First, the study's sample is characterized by a severe gender imbalance, being predominantly female (85.3%). This demographic asymmetry restricts the generalizability of the findings, as males and females may employ different coping styles and display varying levels of emotional reactivity to academic stress. Second, the use of convenience sampling further limits the representative nature of the findings to the broader, diverse university student population. Third, the cross-sectional design of the data precludes the establishment of definitive, long-term causality.

Future research should consider utilizing longitudinal designs to track how the depth of *muraqabah* evolves across an academic semester. Additionally, integrating qualitative interviews or mixed-method designs could provide deeper phenomenological insights into how students personally experience and successfully navigate the psychological transition from *khushu'* during midnight prayer to an active state of *muraqabah* during stressful academic tasks.

CONCLUSION

This study concludes that the quality of religious practice, specifically *khushu'* in *Tahajjud* prayer, significantly reduces academic stress among online students only when it is mediated by *muraqabah*. The research objective of analyzing the psychospiritual mechanism between these variables has been met, revealing a **full mediation model**. This indicates that ritualistic worship alone is insufficient for psychological relief unless it transforms into a sustained transcendental consciousness. Therefore, internalizing the awareness of divine presence is the pivotal factor in modifying cognitive appraisals of academic pressures in a digital learning environment.

Recommendations for Further Studies

Future research should explore other spiritual mediators, such as *tawakkul* (trust in God) or *sabr* (patience), to broaden the psychospiritual model of stress. Additionally, researchers are encouraged to utilize longitudinal or experimental methods to establish stronger causal links and to apply these findings across diverse demographic groups beyond the scope of convenience sampling.

Acknowledgement

The authors would like to express their gratitude to the participants from IOU Bahasa and other institutions for their cooperation. Special thanks are also extended to the faculty and peers who provided insightful feedback during the data collection and drafting of this study.

Ethics statement

This study was conducted in accordance with ethical standards for research involving human subjects. All participants were provided with informed consent prior to data collection, and all data were handled anonymously to ensure confidentiality and privacy.

Authors contribution

The author was responsible for the entire research process, including conceptualization, research design, data collection, statistical analysis using PROCESS Macro, and the final writing of the manuscript.

Conflict of interest

The author declares that there is no conflict of interest regarding the publication of this study.

ORCID

Author Name: Metty Hidayanthi 0009-0002-6803-4357; Evi Afifah Hurriyati 0000-0003-3144-2402

REFERENCES

- Al-Ghazali, I. (2020). *Ihya' 'Ulumuddin 10*. Nuansa Cendekia.
- Aldahadha, B. (2023). Developing a jordanian measure of reverence in muslim praying ('khushoo'): content validity, factor structure and reliability. *Journal of Religion and Health*, 62(5), 3664–3686.
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Aristovnik. *Sustainability (Switzerland)*, 12(20), 1–34.
- Badri, M. (2018). *Contemplation: An Islamic psychospiritual study (new edition)*. International Institute of Islamic Thought (IIIT).
- Bedewy, D., & Gabriel, A. (2015). Examining perceptions of academic stress and its sources among university students: The Perception of Academic Stress Scale. *Health Psychology Open*, 2(2), 2055102915596714.
- Cohen, J. (2016). *A power primer*.
- Coman, C., Țîru, L. G., Meseșan-Schmitz, L., Stanciu, C., & Bularca, M. C. (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability*, 12(24), 10367.
- Doufesh, H., Ibrahim, F., & Safari, M. (2016). Effects of Muslims praying (Salat) on EEG gamma activity. *Complementary Therapies in Clinical Practice*, 24, 6–10.
- Folkman, S. (2013). Stres: appraisal and coping. In *Encyclopedia of behavioral medicine* (pp. 1913–1915). Springer.
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C., DeLongis, A., & Gruen, R. J. (1986). Dynamics of a stressful encounter: cognitive appraisal, coping, and encounter outcomes. *Journal of Personality and Social Psychology*, 50(5), 992.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2019). *Multivariate data analysis*. Cengage learning Hampshire.
- Matin, N. S. (2018). *Tahajjud Therapy for Stress Coping: Psychoneuroimmunological Perspective*. 231(Amca), 617–619. <https://doi.org/10.2991/amca-18.2018.171>
- Pargament, K. I. (2011). *Spiritually integrated psychotherapy: Understanding and addressing the sacred*. Guilford Press.
- Rokayah, C., Sholihah, E. F., & Herdian, F. (2022). Overview of students' academic stress levels on online learning during the COVID-19 pandemic. *Indones. J. Glob. Heal. Res*, 4(1), 145–150.
- Susanty, R., & Hawadi, L. (2020). *Relationship between Self-Regulated Learning and Muraqabah with Academic Dishonesty of Muslim Graduate Students*. <https://doi.org/10.4108/eai.18-9-2019.2293321>
- Wahyu Rahmanto, S., Fachrunisa, R. A., & Suseno, B. (2023). Khushoo In Salah: An Overview of Nafs (Islamic Psychological Perspective). *Asian Journal of Islamic Psychology*, 1(1), 8–14. <https://doi.org/10.23917/ajip.v1i1.3708>