

Qailulah in the Perspective of Islamic Neuroscience: Implications for Students' Mental and Cognitive Well-being

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Abstract

This study aims to explore the concept of Qailulah a short midday nap encouraged in Islamic teachings from the perspective of Islamic neuroscience, and analyze its implications for students' mental and cognitive health. Using a qualitative literature review method, this research collected data from Islamic texts and contemporary neuroscience studies to identify overlapping insights and establish theoretical integration. A descriptive-comparative analysis was employed to examine the relevance of Qailulah to the cognitive performance and psychological well-being of students. The findings reveal that Qailulah not only holds spiritual significance in Islam but also provides scientifically measurable benefits. Neuroscientific evidence shows that short naps can enhance memory consolidation, reduce cortisol levels, improve mood regulation, and strengthen executive brain functions such as attention, emotional control, and decision-making. From an educational standpoint, Qailulah can be adopted as a holistic intervention to mitigate stress, prevent academic burnout, and enhance students' learning efficiency. The study concludes that integrating Qailulah into modern educational practices can foster balanced student development by aligning spiritual practices with scientific understanding.

Keywords: *Qailulah, Islamic neuroscience, mental health, cognitive performance, students.*

Abstrak

Penelitian ini bertujuan untuk mengkaji konsep *Qailulah* tidur siang singkat yang dianjurkan dalam ajaran Islam dari perspektif neurosains Islam serta menganalisis implikasinya terhadap kesehatan mental dan kognitif peserta didik. Penelitian ini menggunakan metode studi literatur kualitatif dengan menghimpun data dari teks-teks Islam dan hasil penelitian neurosains modern guna menemukan titik temu konseptual dan integrasi teoretis. Analisis dilakukan secara deskriptif-komparatif untuk menilai kesesuaian dan kontribusi *Qailulah* terhadap performa kognitif dan kesejahteraan psikologis peserta didik. Hasil kajian menunjukkan bahwa *Qailulah* tidak hanya memiliki dimensi spiritual dalam Islam, tetapi juga manfaat ilmiah yang dapat diukur secara objektif. Bukti neurosains menunjukkan bahwa tidur siang singkat dapat meningkatkan konsolidasi memori, menurunkan hormon stres (kortisol), memperbaiki regulasi emosi, serta memperkuat fungsi eksekutif otak seperti perhatian, kontrol emosi, dan pengambilan keputusan. Dari sudut pandang pendidikan, *Qailulah* dapat diadopsi sebagai intervensi holistik untuk mengurangi stres, mencegah kejenuhan akademik, dan meningkatkan efisiensi belajar peserta didik. Penelitian ini menyimpulkan bahwa integrasi *Qailulah* ke dalam praktik pendidikan modern dapat mendorong pengembangan peserta didik secara seimbang dengan memadukan dimensi spiritual dan ilmiah.

Kata Kunci: *Qailulah, neurosains Islam, kesehatan mental, performa kognitif, peserta didik.*



Introduction

Modern education demands that students possess a high level of concentration and strong mental resilience to cope with the increasing complexity of academic workloads (Yugo 2024). The pressure to achieve academic success, compounded by a dense curriculum and rapid technological advancements, makes students more vulnerable to stress, cognitive fatigue, and mental health issues (Setiyowati, Rachmawati, and Prihatiningsih 2021). In the long term, this situation can negatively affect the learning process, emotional development, and overall quality of life of students. Therefore, it is crucial for the educational sector to develop effective strategies to maintain a balance between academic demands and students' mental well-being (Dewi 2024).

Currently, the phenomenon of decreased concentration, learning fatigue, and even mood disturbances after the midday break has become a common issue in school environments, particularly at the elementary and secondary education levels (Mason et al. 2022). Many teachers have observed that students often exhibit symptoms such as difficulty focusing when afternoon classes begin, increased restlessness or distractibility, and a noticeable decline in motivation to complete academic tasks. These symptoms not only affect the effectiveness of classroom learning but also influence students' social interactions, the quality of their participation in school activities, and, more broadly, disrupt the overall stability of the educational process.

In this context, the concept of *Qailulah* (Riad and Khadafi 2023) a short midday rest or nap encouraged in Islamic teaching emerges as a potential solution worthy of further exploration (Riani 2024). *Qailulah* is not merely a religious or cultural tradition; it is also supported by scientific foundations that can be examined through the lens of modern neuroscience (Tumiran et al. 2018). Various studies have demonstrated that short naps can enhance memory consolidation, reduce stress levels (Pamuji 2024), and improve executive brain functions such as focus and decision-making (Paz, Dashti, and Garfield 2023). Therefore, *Qailulah* is highly relevant to be integrated as part of a holistic educational strategy focused on student well-being.

Previous research has demonstrated that a 10–30 minute nap can positively impact memory enhancement, emotional regulation, and mood stability (Farhadian et al. 2021). A study by Fadzil & Othman (2021) indicated that *Qailulah* can help optimize neurocognitive performance and maintain the stability of prefrontal cortex functions, which are responsible for decision-making and concentration. Furthermore, Fan et al. (2022) found that regular napping may reduce blood pressure, decrease the production of the stress hormone cortisol, and enhance alpha brainwave activity, which plays a role in mental relaxation (Fan et al. 2022).

From the Islamic perspective, the practice of *Qailulah* is strongly rooted in the Prophet's hadiths (Riani 2024), and has been adopted by the early generations of Muslims as part of a healthy lifestyle (Salim 2017). From the scientific standpoint, neuroscience research indicates that short daytime naps have a significant effect in reducing stress hormones such as cortisol (Lou et al. 2024), and in enhancing synaptic plasticity in the brain, which is associated with learning capacity and memory retention (Farhadian et al. 2021). The integration of these two approaches opens up new opportunities for the development of adaptive and contextually relevant educational strategies.

Nevertheless, most of these studies have been conducted separately and tend not to integrate Islamic values with modern scientific knowledge. On one hand, the practice of *Qailulah* is often perceived merely as a religious routine or a traditional cultural habit, receiving limited attention from scientific perspectives. On the other hand, studies in neuroscience and modern psychology that explore daytime napping rarely delve into its connection with religious teachings, particularly in Islam. In fact, an integrative approach that combines faith and science could serve as a strong foundation for developing more contextual and applicable educational strategies, especially within the field of Islamic education.

This gap indicates a significant lack of literature. There is limited research that specifically examines *Qailulah* from an integrative perspective combining neuroscience and Islam particularly in relation to students' cognitive performance and mental health. Some studies, such as those by Tumiran et al. (2018) (Tumiran et al. 2018), and Riani (2024) (Riani 2024), have begun to explore the integration of these two perspectives. However, their approaches remain generally descriptive and do not specifically address the application of *Qailulah* in educational contexts or its direct impact on school-aged learners.

This study offers a novel contribution by filling that gap. It specifically explores the practice of *Qailulah* not merely as a Sunnah or cultural habit, but as a scientifically justifiable strategy supported by modern neuroscience. Another key novelty of this research lies in its attempt to develop a theoretical framework that integrates Islamic values with neuroscience, aimed at supporting the development of educational policies that balance students' cognitive and spiritual needs.

The urgency of this research lies in the need to integrate both spiritual and scientific approaches within the educational system. To date, the practice of *Qailulah* has often been viewed merely as a Sunnah of the Prophet or a cultural tradition (Riad and Khadafi 2023), without considering its scientific potential to support students' mental health and academic performance. Conversely, studies on daytime napping from a neuroscience perspective often overlook the religious values and social context of Muslim students. Hence, a comprehensive study that bridges these two perspectives is both necessary and timely.

The aim of this study is to conduct an in-depth examination of the concept of *Qailulah* in Islam, explore its connection with findings in the field of neuroscience, and analyze its impact on students' mental and cognitive health. Accordingly, this research is expected to provide both theoretical and practical foundations for the development of educational strategies that integrate a balance between spiritual and scientific dimensions. Such strategies are anticipated to support educational institutions in formulating policies that are more responsive to students' psychological and academic needs.

Therefore, this study offers a novel contribution by integrating two approaches that have traditionally been treated separately: Islamic spirituality and modern science, specifically neuroscience. This research seeks to establish a theoretical and practical foundation for developing educational strategies that not only aim for academic achievement but also promote the psycho-spiritual well-being of students.

Based on this background, the research questions addressed in this study are as follows:
1) What is the concept of *Qailulah* from the perspective of Islamic teachings? 2) How does modern neuroscience explain the effects of short naps on mental and cognitive health? 3) What

are the implications of integrating Islamic and neuroscientific perspectives in the practice of *Qailulah* for students' mental balance and academic performance?

This study aims to assess the effectiveness of *Qailulah* as an intervention to improve students' mental well-being and cognitive performance within modern educational settings. The expected outcome is the establishment of a theoretical and practical framework that integrates Islamic teachings with neuroscientific findings, thereby contributing to the formulation of more humanistic, balanced, and sustainable educational policies.

Research Method

This study employs a literature review approach aimed at examining the concept of *Qailulah* from both Islamic and neuroscientific perspectives, as well as its implications for students' mental and cognitive health. The literature review method was chosen as the primary research design, allowing the researchers to collect, analyze, and synthesize various relevant scholarly sources. Through this approach, the study is expected to provide a comprehensive and in-depth understanding of the subject matter.

Data collection was carried out by reviewing a wide range of references, including Islamic literature discussing the concept of *Qailulah*, as well as neuroscience research on the impact of midday naps on cognitive function and mental health. Additional data were also gathered from supporting materials such as academic journals, books, and relevant articles to strengthen the analysis of *Qailulah* and its benefits within educational contexts.

The data were analyzed using a descriptive-comparative approach, whereby findings from Islamic and neuroscientific sources were examined to identify their alignment and relevance to students' mental well-being and cognitive enhancement. This method is expected to yield scientific contributions that can serve as a foundation for educational policy in implementing *Qailulah* as a strategy to enhance student well-being.

Result And Discussion

A. The Concept of *Qailulah* in Islam

Qailulah refers to the concept of a short midday nap that is recommended in Islamic teachings as part of a balanced lifestyle (Masronia, Nurjanah, and Darmawanita 2024). The Prophet Muhammad consistently practiced *Qailulah* and encouraged his followers to do the same (Riad and Khadafi 2023). In a hadith, the Prophet is reported to have said: "Take a midday nap (*Qailulah*), for indeed Satan does not take a nap." (Hadith narrated by Abu Nu'aim in *Ath-Thibb*, as stated by Al-Imam Al-Albani in *Silsilah Al-Ahadith As-Sahihah*, 4/202, no. 1647; its chain of narration is sound/hasan.)

This indicates that *Qailulah* is not merely a habitual practice, but rather a Sunnah that offers benefits for both physical and spiritual well-being. From an Islamic perspective, *Qailulah* is not solely intended for physical rest, but also serves to enhance the quality of worship (Riad and Khadafi 2023). The hadith suggests that daytime sleep is a blessed act that protects individuals from the disturbances of Satan. In this context, a midday nap is seen as an ideal time for rest and energy restoration, as well as a form of spiritual preparation to perform acts of worship with greater devotion.

The timing of *Qailulah* varies in interpretation; some scholars understand it as a nap taken before the Zuhur prayer (i.e., after the sun begins to decline), while others place it after

the Zuhr time has commenced (Trianti et al. 2024). According to '*Umdah Al-Qari*, as cited in *Al-Mawsu'ah Al-Fiqhiyyah*, the legal ruling of *Qailulah* is that it is a Sunnah. This means that according to Islamic scholars, the practice is recommended but not obligatory. Thus, neglecting it does not incur sin, and its observance depends on the individual's ability and time availability.

Imam Ash-Shirbini Al-Khatib explained that *Qailulah* refers to a nap taken before *zawal*, the point when the sun begins its descent westward. He likened *Qailulah* to the pre-dawn meal (*Zuhr*) for those who fast. Accordingly, this midday rest plays a significant role in supporting and strengthening one's worship practices (*Al-Mawsu'ah Al-Fiqhiyyah*, 34:130).

In the Qur'an, although not explicitly mentioned, the concept of rest during the day is implied in Surah An-Naba, verse 9, which indicates that sleep is a natural restorative mechanism ordained by Allah SWT for the well-being of humankind. "*And We made your sleep for rest.*" (QS. An-Naba': 9).

This verse serves as the textual foundation that sleep is an essential mechanism established by Allah as part of the human biological system. In other words, Islam does not separate spiritual and physical needs. *Qailulah* (midday nap) is concrete evidence of the integration of both aspects within a comprehensive (*syumuliyah*) life system.

The practice of *Qailulah* also has a strong historical footprint within Islamic tradition. This practice is not only derived from religious teachings but was also directly exemplified by the Prophet Muhammad SAW and his companions. The Prophet Muhammad was known for maintaining a balance between acts of worship and the need for rest. Daytime sleep was not merely seen as fulfilling a physical need, but also as a spiritual means to strengthen the relationship with Allah SWT (Riad and Khadafi 2023). Several hadiths narrated by the companions recommend and emphasize the virtues of napping. One famous hadith mentions that midday sleep refreshes the mind and supports the optimal performance of worship. Over time, this practice has become an inseparable part of the life of Muslims around the world (Ikawati, Nurahmawati, and Mulazimah 2021).

From an Islamic perspective, maintaining physical health is a form of trust (*amanah*) that every individual must uphold. Midday sleep, or *Qailulah*, is part of the effort to fulfill this trust. From a spiritual standpoint, *Qailulah* holds profound meaning that reflects the vertical relationship between the servant and Allah SWT. This practice is seen as a form of obedience and submission to the guidance of Sharia. The Prophet Muhammad SAW set an example by using midday sleep as a means to revitalize both physical and spiritual energy, while simultaneously deepening the spiritual connection with the Creator. Hadiths that describe the virtues of midday sleep serve as normative foundations for Muslims in building an awareness that every activity, including rest, can become a part of worship filled with spiritual value (Khairani 2020).

In the spiritual dimension, *Qailulah* is not only understood as a means to achieve physical rest, but also as a contemplative moment that strengthens one's relationship with the Almighty God. The silence accompanying the afternoon nap becomes a space for Muslims to calm their minds, reflect on their life journey, and reinforce their spiritual closeness to Allah SWT. In classical Islamic literature, *Qailulah* is viewed as an expression

of total surrender to the Divine will, simultaneously serving as a reminder of human limitations and dependence on the Creator. This concept aligns with Islamic teachings on faith, submission to destiny, and complete surrender to Allah. Therefore, the afternoon nap is not merely seen as a biological need, but also as a spiritual practice that carries the value of worship, as reflected in the Sunnah tradition (Riad and Khadafi 2023).

B. The Neuroscientific Perspective on Qailulah

From a neuroscience perspective, napping plays a crucial role in enhancing brain performance (Fadzil and Othman 2021) and mental health. A study has shown that short naps, such as Qailulah, can improve memory consolidation, increase concentration, and optimize decision-making processes (Pamuji 2024). Napping helps the brain manage information that has been received and store it in long-term memory.

In general, the human brain requires rest cycles to maintain the optimization of cognitive processes (Susilawati et al. 2024), especially during the daytime when mental performance typically declines, a phenomenon known as the post-lunch dip. Qailulah, as a form of nap taken around midday, provides a strong restorative effect. Research indicates that Qailulah improves alertness, enhances motor reactions, and boosts mood and concentration (Souabni et al. 2021), even in individuals who have previously had sufficient night-time sleep. This is because Qailulah usually involves the early stage of non-REM sleep, known for its active brain recovery phase (Tumiran et al. 2018).

On a deeper level, from a neurophysiological perspective, Qailulah plays a crucial role in memory consolidation, both declarative (fact memorization) and procedural (skills). When a person learns or receives new information, the memory is still fragile. Napping gives the brain an opportunity to "reprocess" that information, strengthening the synaptic connections in the hippocampus and neocortex, which are responsible for long-term storage (Staresina 2024).

Studies using EEG technology have even shown increased brain wave activity during sleep related to the processing of learned information (Mar'i et al. 2025). Several studies have also noted that children and adolescents experience significant improvements in academic performance and problem-solving abilities after a brief nap, as their brains are biologically more sensitive to memory reinforcement through sleep (Tumiran et al. 2018).

Other research indicates that napping can enhance synaptic plasticity, meaning the brain becomes more capable of forming and strengthening connections between neurons (J. Li et al. 2023). This has implications for improving learning capacity and information absorption in learners. Therefore, napping is not just a rest period but also a biological process that helps the brain function more effectively (George, George, and Shahul 2024).

In the context of the central nervous system, Qailulah plays a key role in modulating the emotional regulation system through increased activity in the prefrontal cortex, the part of the brain responsible for executive functions and emotional control (Fan et al. 2022). Short-duration naps can reduce activity in the amygdala the center for processing negative emotions such as anxiety and fear (W. Li et al. 2024), helping learners regulate their emotions in a more adaptive way. With this stable emotional function, individuals are better

equipped to cope with academic stress, exhibit better psychological resilience, and develop a positive mindset toward the learning process.

In addition, napping has been shown to reduce cortisol levels, a hormone associated with stress (Lou et al. 2024). *Qailulah* has been proven to reduce stress levels, stabilize blood pressure, and improve disrupted circadian rhythms caused by late-night activities such as Tahajjud prayers or pre-dawn meals during fasting. This explains how *Qailulah* serves as a highly relevant recovery mechanism in the Islamic context, particularly for those who regularly engage in nighttime worship (Tumiran et al. 2018). Furthermore, *Qailulah* also helps alleviate symptoms of mental fatigue, learning burnout, and decreased enthusiasm for worship often experienced by learners after morning study or prayer activities.

A study found that napping can enhance alertness and cognitive abilities (Fadzil and Othman 2021), as well as improve academic performance (Pamuji 2024). In the context of education, this means that learners who practice *Qailulah* are better equipped to manage academic stress and maintain focus during lessons (Novianti and Murni 2024). Other research indicates that napping also plays a role in boosting creativity. Scientists also recommend napping between 2:00 PM and 4:00 PM, which aligns with Islamic teachings that suggest *Qailulah* before or after the Dhuhr prayer (Nor et al. 2016). Additionally, many non-Muslim countries also implement similar concepts, such as the "power nap," to enhance productivity (George, George, and Shahul 2024).

Overall, from a neuroscientific perspective, *Qailulah* is a form of natural rest that supports brain function, enhances learning capacity, and stabilizes emotions and body physiology. This practice is highly relevant in the educational field, particularly for children and adolescents facing challenges with concentration and balancing academic activities and worship. The structured implementation of *Qailulah* in school environments holds great potential to improve learning effectiveness and foster spiritually aware and cognitively prepared students for their daily activities.

C. The Implications of *Qailulah* on the Mental and Cognitive Health of Students

The implementation of *Qailulah* in educational settings not only affects the physiological aspects of students but also contributes positively to their psychological stability. Students who have the opportunity to take a short nap demonstrate better abilities to stabilize their emotions, such as anger, frustration, or anxiety, which often arise due to academic pressure (Novianti and Murni 2024).

Healthy emotional regulation enables students to be more receptive to criticism, resolve social conflicts constructively, and build harmonious interpersonal relationships at school. With adequate nap time, mood stability is improved (Kadepa, Atmodjo, and Moningkey 2025), leading to more positive social interactions within the school environment. This results in increased learning motivation and stronger relationships between students and teachers.

Qailulah has significant implications for the mental health of students, particularly in reducing academic stress and enhancing emotional well-being (Riani 2024). Short naps have been shown to lower cortisol levels (Lou et al. 2024), helping students feel more relaxed and better prepared to face learning challenges (Mehta 2022). This finding aligns with research

indicating that napping contributes to reducing anxiety levels and improving mental resilience.

Furthermore, *Qailulah* can serve as a preventive strategy against early signs of mental health issues, such as academic burnout and mild depression. In educational psychology studies, one of the main causes of chronic stress among students is the lack of effective break times to rest the brain. A short nap provides recovery time for the brain, interrupts the cycle of prolonged stress, and reduces the risk of students experiencing extreme mental fatigue, which, over time, can disrupt learning motivation and psychological health.

From a cognitive perspective, *Qailulah* plays a role in enhancing memory and analytical thinking skills. Short naps help the brain consolidate short-term memory into long-term memory (Zeng et al. 2021), which is essential in the learning process. Additionally, according to John Sweller's Cognitive Load Theory, students have a limited capacity to process new information in working memory. When students experience fatigue or stress due to a heavy study schedule, extraneous cognitive load increases and can interfere with the formation of knowledge schemas. In this context, *Qailulah* acts as a strategy to reduce irrelevant cognitive load, restore working memory capacity, and enable students to be more prepared to receive and process learning material effectively (Sweller, Ayres, and Kalyuga 2011).

Moreover, *Qailulah* contributes to improving focus and concentration (Riani 2024). After a nap, the brain enters an optimal state for absorbing new information (Paller, Creery, and Schechtman 2022) and completing academic tasks more efficiently. Studies show that students who nap demonstrate increased attention (Ru et al. 2022) and faster completion of exam tasks compared to those who do not nap. Creativity and problem-solving abilities can also be enhanced through *Qailulah* (Wulandari and Nurita 2024). Napping helps the brain organize information and find innovative solutions to problems (George, George, and Shahul 2024). This is crucial in an educational world that increasingly demands creative thinking skills.

Socially, the practice of *Qailulah* also plays a role in creating a more balanced and humane learning culture. Schools that provide space for afternoon naps not only show concern for academic achievement but also for the mental and spiritual well-being of their students. This culture encourages the formation of an inclusive, healthy, and more adaptable learning environment that caters to students' individual needs. In the long run, this contributes to strengthening students' resilience, empathy, and productivity.

Finally, *Qailulah* can be integrated as part of the hidden curriculum in fostering a healthy lifestyle based on Islamic teachings. Students who are accustomed to balancing activities and rest will be better able to maintain their mental health not only during their school years but also in the long term, when facing the challenges of adulthood. Thus, *Qailulah* is not just a temporary strategy, but a long-term investment in shaping a generation of learners who excel intellectually and are psychologically and spiritually healthy.

CONCLUSIONS

Based on the findings of the study, it can be concluded that the practice of *Qailulah*, as recommended in Islamic teachings, is highly relevant and effective in improving the mental

health and cognitive functions of students. This concept not only aligns with the spiritual values of Islam but is also supported by neuroscience findings that show that short naps can reduce stress, enhance memory, and improve emotional regulation. Therefore, *Qailulah* can be considered as an integrative strategy in education that supports the psychological well-being and academic achievement of students.

The research findings indicate that *Qailulah* has the potential to serve as a holistic intervention in the modern education system. The integration of Islamic teachings and scientific approaches in the application of *Qailulah* opens opportunities for educational institutions to develop more adaptive policies that address the psycho-educational needs of students. This approach also contributes theoretically by broadening the understanding of the role of spirituality in supporting mental health and learning.

As a follow-up, it is recommended that educational institutions begin to consider allocating specific time for *Qailulah* in the learning schedule, along with educating teachers, students, and parents about its benefits. Further research is also encouraged to be conducted with an empirical approach through controlled observations and experiments to directly measure the impact of *Qailulah* on the academic, emotional, and social performance of students at various educational levels.

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