

## THE EFFECT OF TAHAJUD PRAYER ON STRESS

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### ABSTRAK

**Pendahuluan:** Stres adalah reaksi fisik dan emosional yang muncul ketika seseorang menghadapi tekanan atau perubahan lingkungan yang mengharuskannya untuk beradaptasi, jika stress dibiarkan dapat mengakibatkan banyak gangguan, adapun salah satu hal yang dapat dilakukan adalah sholat tahajud. Tujuan penelitian untuk mengetahui manfaat dari sholat tahajud terhadap stres. **Metode:** Desain penelitian menggunakan metode Tinjauan Literatur dengan menganalisis artikel dari *database* seperti PubMed, Science Direct, ProQuest, dan Google Scholar, artikel tahun 2020-2025, dengan pendekatan diagram alir *Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA)*. Setelah dilakukan seleksi didapatkan 6 artikel yang sesuai dengan kriteria inklusi. **Hasil:** terapi sholat tahajud dapat menurunkan tingkat stres. **Diskusi:** Setiap manusia mengalami tingkat stres yang berbeda, maka dalam proses shalat tahajud harus disesuaikan dengan stres, kegiatan sholat tahajud dilakukan secara rutin tanpa paksaan dan ikhlas.

**Kata Kunci:** tahajud, stres

### ABSTRACT

**Introduction:** Stress is a physical and emotional reaction that occurs when a person faces pressure or environmental changes that require them to adapt. If stress is left unchecked, it can lead to many disorders. One thing that can be done is to perform tahajud prayers. The purpose of this study is to determine the benefits of tahajud prayer on stress. **Method:** The research design used a literature review method by analysing articles from databases such as PubMed, Science Direct, ProQuest, and Google Scholar, focusing on articles published between 2020 and 2025, using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flowchart approach. After selection, six articles were found to meet the inclusion criteria. **Results:** Tahajud prayer therapy can reduce stress levels. **Discussion:** Every individual experiences different levels of stress, so the process of performing tahajud prayer must be adapted to the stress level. The activity of tahajud prayer should be performed regularly without coercion and with sincerity.

**Keywords:** tahajud, stress

## INTRODUCTION

Stress is a disturbance in the body and mind caused by changes and demands in life. Stress is external demands that affect a person, such as objects in the environment or stimuli that are objectively dangerous (Refialdinata, *et al*, 2022). Stress can also be defined as pressure, tension, or unpleasant disturbances originating from outside an individual. Stress is a state of imbalance between one's self/mind and the daily realities of life that cannot be avoided or a change that requires adaptation (Yu *et al.*, 2016).

The level of stress is an imbalance between one's self/mind and the daily realities of life that cannot be avoided or a change that requires adaptation. Stress management is an important topic in many countries around the world. (Deng *et al.*, 2022). Stress can be caused by many factors, such as disasters, daily problems, and various pressures of life (Kandula and Wake, 2022). Psychological stress is closely related to life, so follow-up action must be prioritised (Alotiby, 2025). Stress can be very harmful if left unchecked, as it can trigger many serious problems such as rapidly developing degenerative diseases, and can even disrupt your life (Pranata, 2020b).

Therefore, proper management is necessary to reduce stress so that complications from stress itself do not occur (Qasem *et al.*, 2024). These stress factors not only affect mental and physical health but also daily life (Alhujili *et al.*, 2024). Stress is an important part of human life; everyone experiences stress, so it is essential to implement appropriate measures, such as turning to the Creator through tahajud prayer (Kikukawa *et al.*, 2021).

Stress is known to have marked and varied effects on cognitive function, and these effects are largely attributed to the action of the hormone cortisol on brain function (Law and Clow, 2020). Cortisol is a powerful steroid hormone released from the adrenal cortex into the circulation following activation of the hypothalamic-pituitary-

adrenal (HPA) axis by stress and the suprachiasmatic nucleus (SCN) of the hypothalamus (Puts *et al.*, 2023). Stress is considered a physiological and behavioural response to stimuli, with the brain acting as a critical interpreter of what causes stress. Cortisol acts as both an output stress index and an input on behavioural inhibition (Prete *et al.*, 2020).

Cortisol and stress typically increases when a person is chronically deprived of, or about to lose, status. In addition, cortisol will be lower if status is higher, as long as that status is stable, increasing a person's sense of control, and does not significantly increase a person's responsibility (Panter-Brick *et al.*, 2020). High cortisol levels have been associated with decreased activity in the dorsolateral prefrontal cortex (DLPFC) and prolonged activation of the amygdala, a deregulation that can lead to reduced emotional regulation, persistent negative mood and possibly (hyper)activation of the HPA axis during confrontation with stressful events (Pulopulos *et al* 2020).

Stressful experiences affect biological stress systems, such as the hypothalamic-pituitary-adrenal (HPA) axis. Life stress has the potential to alter HPA axis regulation and is associated with poorer physical and mental health. Stress and anxiety are closely related to the hormone cortisol (Meier *et al.*, 2021). The human body constantly responds to internal and external stress. The body processes stress information and elicits responses depending on the level of threat (Ziomkiewicz *et al.*, 2021).

The body's autonomic nervous system is divided into the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS) (Pearlmutter *et al.*, 2020). During times of stress, the SNS becomes active. The SNS is responsible for the fight-or-flight response, which causes a series of hormonal and physiological responses. The amygdala is responsible for processing fear, arousal, and emotional stimuli to determine the appropriate response.

If necessary, the amygdala sends stress

signals to the hypothalamus (Roque *et al.*, 2020). The hypothalamus then activates the SNS, and the adrenal glands release large amounts of catecholamines, such as epinephrine (Ruddick-Collins *et al* 2020).

This results in effects such as increased heart rate and respiratory rate. When the body continues to perceive the stimulus as a threat, the hypothalamus activates the HPA axis. Cortisol is released from the adrenal cortex and allows the body to remain in a state of high alert (Tang *et al.*, 2021). In fact, the catabolic mechanism of cortisol provides energy for the body (Selmaoui and Touitou, 2021). Cortisol, a steroid hormone, is synthesised from cholesterol. Although widely known as the body's stress hormone, cortisol has a variety of effects on various functions throughout the body. It is the main glucocorticoid released from the fasciculata zone layer of the adrenal cortex.

The hypothalamic-pituitary-adrenal axis regulates the production and secretion of cortisol (Jeong *et al.*, 2020). Tahajud prayer is a recommended sunnah prayer in Islam. Tahajud prayer is an important part of Islam, as it offers numerous benefits. Research has shown that prayers offered to Allah SWT can bring peace of mind and good health (Nahuda *et al.*, 2022).

Tahajud prayer is one of the highly recommended (muakkad) sunnah prayers in Islam. Linguistically, 'Tahajud' comes from the word 'hajada,' which means 'to wake up at night.' In the context of worship, Tahajud refers to the sunnah prayer performed at night after sleeping, even if it is only for a short while. The recommendation to perform Tahajud prayer is found in the Qur'an and the hadith of Prophet Muhammad SAW. One of the verses mentioning Tahajud prayer is And during part of the night, perform Tahajud prayer (as an additional act of worship) for you: perhaps your Lord will elevate you to a praiseworthy position.' (QS. Al-Isra': 79).

Additionally, there are many hadiths explaining the virtues of Tahajud prayer, including the hadith narrated by Imam

Bukhari and Muslim . 'From Abu Hurairah, may Allah be pleased with him, that the Messenger of Allah, peace and blessings be upon him, said: "The best prayer after the obligatory prayers is the night prayer."' (HR. Muslim). The time for performing the Tahajud prayer is after sleeping at night, and it is best performed during the last third of the night. This time is considered the most auspicious time for supplication and seeking forgiveness from Allah SWT.

The virtues of Tahajud prayer include drawing closer to Allah SWT and increasing piety, being a cause for the forgiveness of past sins, bringing peace of mind and heart, and being the appropriate time to supplicate to Allah SWT. Tahajjud prayer is tranquillity, because the deeds of believers lead a servant to be carried away and lulled by intimacy with Allah in the quiet, clear midnight, so that I may find peace and tranquillity (Nurhadi, 2021).

performing tahajud prayers and dhikr, which have been proven to calm the heart (Muh. Alfian Zidni Nuron A'la, 2017). When someone performs tahajud prayers, their stress response decreases. (Utami and Usiono, 2020). Tahajud prayer as a medium because Tahajud prayer is one form of mental therapy (Tahajud *et al.*, 2023).

Previous research has shown that it is necessary to examine the role of tahajud prayer in relation to stress. Therefore, the purpose of this study is to determine the benefits of tahajud prayer in relation to stress.

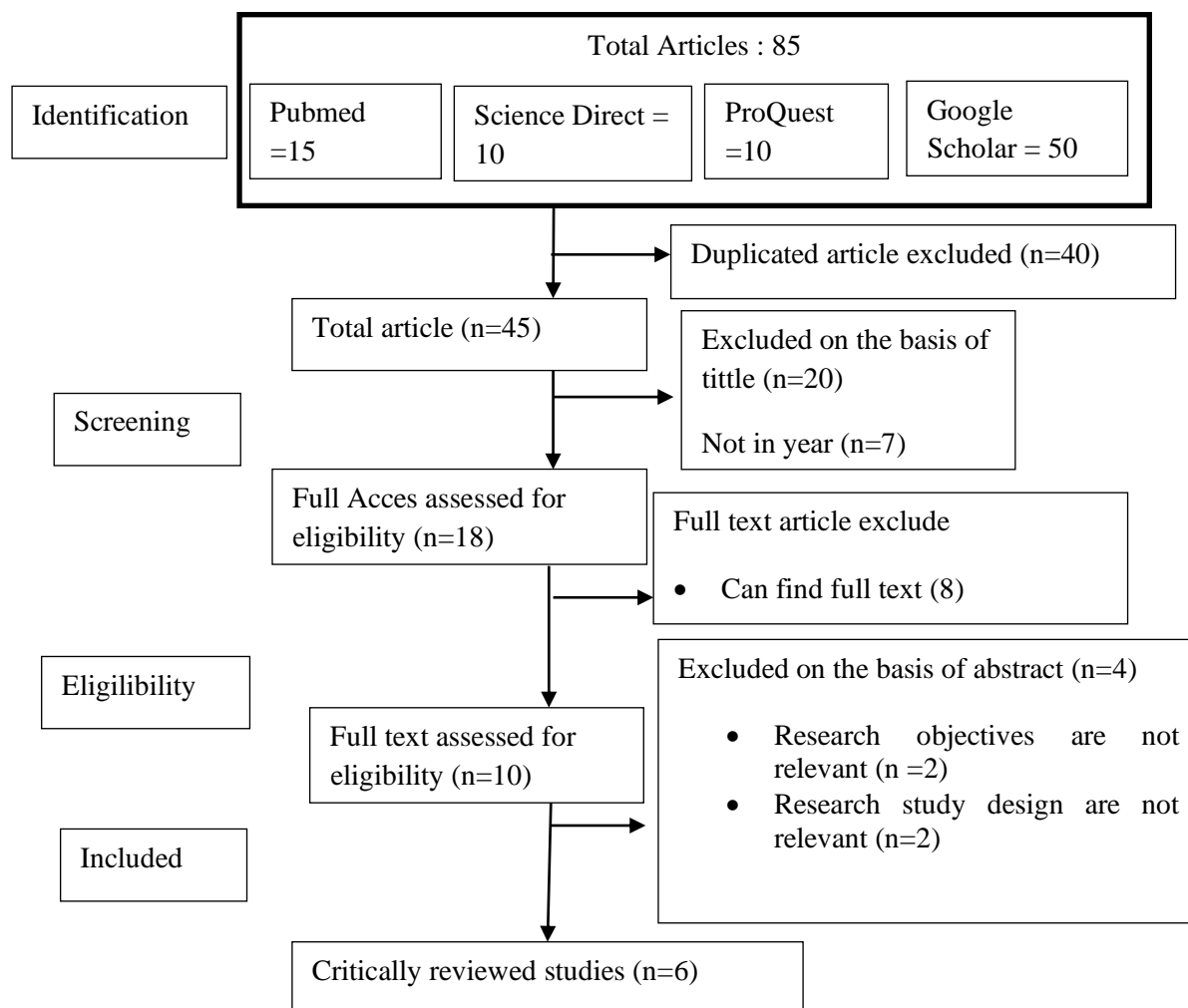
## RESEARCH METHODS

A systematic review is a method used to explore the breadth or depth of literature, map and summarise evidence, inform future research, and identify or address knowledge gaps. The value of this research method uses a research design employing a literature review method by analysing articles from databases such as PubMed, Science Direct, ProQuest, and Google Scholar, articles from 2020 to 2025, with a PRISMA (Preferred Reporting Items for Systematic Reviews and

Meta-Analyses) flowchart approach. After selection, six articles were found to meet the inclusion criteria. These were primary, secondary, or systematic studies with

measurable data Articles in English or Indonesian. Articles on the theme of the role of tahajud prayer in reducing stress.

## RESULTS



**Here are the articles selected based on the inclusion criteria.**

No	Researcher Name, Year	Research Title	Method	Conclusion
1	Aulia Nabila et al, 2024 (Nabila <i>et al.</i> , 2024)	The Effectiveness of Tahajud Prayer on Stress Reduction	Qualitative research methods with a case study research type	Tahajud prayer therapy is effective in Reducing stress
2	Indrawanto, et al, , 2023 (Indrawanto <i>et al.</i> , 2023)	The Relationship between the Intensity of Tahajud Prayer and the Stress Level Of Medical Students of Muhammadiyah University of Malang, Class of 2021	a quantitative , Analytical observational research method with a cross-sectional Approach.	There is a significant relationship between the intensity of Tahajud worship and stress levels.
3	Fernanda, et al, 2024 (Fernanda <i>et al.</i> , 2024)	The Relationship Between The Intensity Of Tahajud Prayer With Stress Levels On Ahmad Dahlan University Medical Faculty Students	a quantitative , Observational analytic quantitative study using a cross-sectional design	The higher the intensity of Tahajud prayer, the lower the stress level, and vice versa, if the intensity of Tahajud prayer is lower, the stress level is higher.
4	Novitri et al, 2025. (Novitri, Fuad and Basuki, 2025)	The Relationship between the Intensity of Tahajud Prayer and the Stress Level of Grade IX Students of Istiqomah Sambas Sambas Boarding School Purbalingga	a quantitative , analytical observational methods with a cross-sectional design	There is a significant relationship between the intensity of Tahajud prayer and stress levels with a negative correlation direction, which means that the higher the intensity of Tahajud prayer, the lower the stress level.
5	Yusni, 2024, (Yusni, Yusuf and Yahya, 2023)	The Response of the Hormone Cortisol as a Biomarker of Stress and Its Influence on Blood Glucose Levels After 6 Weeks of Routine Tahajjud in Healthy Young Men	a quantitative , , The research design was a randomized controlled trial	Tahajud prayer is a complementary and alternative therapy for stress
6	Ogmun, 2024, (Ogmun <i>et al.</i> , 2025)	The Effect of Tahajjud on Students' Stress Mediated By Personality Types	a quantitative , , The research design was a randomized controlled trial	Tahajud prayer therapy is effective in Reducing stress

**DISCUSSION**

Stress is the process of reacting to events and environmental characteristics that are challenging, burdensome, or threatening to happiness (Tengku Kasim and Abdul Majid,

2020). Stress can be short-term, situational, and a positive force that motivates performance; however, if experienced over a long period of time, it can become chronic stress, which has a negative impact on health

and well-being (Kartika, 2018). Mentally, it increases feelings of anxiety, loneliness, and depression; physically, it disrupts sleep, increases heart rate and blood pressure, reduces the body's ability to produce antibodies, weakens the immune system, and slows wound healing (Bahrir and Komariah, 2020). The results of the six articles show that tahajud prayer has a role in managing stress, although there are still differences in the treatment of tahajud prayer. Tahajud prayer, as a sunnah worship performed at night after sleep, has an interesting correlation with the neuroendocrine system in the human body. The neuroendocrine system is a complex network consisting of endocrine glands and the nervous system that work together to regulate various bodily functions, including hormones, neurotransmitters, and brain activity (Phumsatitpong, *et al* 2021). circadian gene expression profiles for physically active individuals, which could potentially be used to identify the optimal time interval for physical exercise. Organism adaptation to rhythmic environments is mediated by an internal timing system called the circadian clock (Sharma *et al.*, 1989).

This circadian clock network regulates the release of many hormones, which in turn influence some of the most vital behavioural functions. The sleep-wake cycle is under strict circadian control with strong influences from rhythmic hormones such as cortisol and others. Cortisol is a type of steroid hormone that affects how the body responds to stress (Dinse *et al.*, 2017). Cortisol, commonly referred to as the “stress hormone”, plays a major role in overall bodily function. Cortisol corresponds to the human sleep cycle, provides alertness, and is secreted by the adrenal cortex (Rice *et al.*, 2019).

Tahajud prayer from the five is performed one third of the night with different durations and numbers of rakaats, but under the same conditions. These results indicate that tahajud prayer requires further research to determine the extent of its role in managing stress, particularly in relation to the function of the hormone cortisol as an indicator of stress.

Cortisol itself is one of the markers of increased stress in humans. (Alacreu-Crespo *et al.*, 2022).

Cortisol released from intense exercise suppresses subsequent cortisol responses to psychosocial stressors. (Caplin *et al.*, 2021). Stress can be caused by internal factors or external factors. Melatonin is a hormone that regulates sleep and wake cycles. Tahajud prayer can help increase melatonin production at night, which can improve sleep quality and alleviate sleep disorders. HGH is a hormone that plays a role in cell growth and regeneration. Some studies suggest that Tahajud prayer can stimulate HGH production, which can be beneficial for muscle, bone, and metabolic health. Endorphins are hormones that have pain-relieving effects and enhance feelings of happiness (Chani *et al.*, 2024).

Tahajud prayer can trigger the release of endorphins, which can help reduce stress, anxiety, and depression. Performing Tahajud prayer at night can help regulate the body's circadian rhythm, which is the internal biological clock that controls various bodily functions, including sleep, hormones, and neurotransmitters (Siagian and Boy, 2020).

Performing Tahajud prayer with devotion and full concentration can activate the parasympathetic nervous system, which has a calming and relaxing effect on the body (Suhermi and Ramli, 2022). The movements in prayer, such as bowing and prostrating, as well as the recitations in prayer, can stimulate the production of certain hormones and neurotransmitters that are beneficial for physical and mental health (Pratiwi and Kamila, 2023).

Tahajud prayer can help improve sleep quality. Waking up at night for Tahajud prayer can help regulate sleep and wake cycles, resulting in deeper and more restful sleep (Rahmandani and Maysa, 2023). Tahajud prayer is also beneficial for heart health. The movements in prayer, such as bowing and prostrating, can help improve blood circulation and maintain heart health (Mahfuzah, 2023).

Tahajud prayer can help boost the immune system. This is because Tahajud prayer can help regulate cortisol, a hormone that plays a role in managing stress and immunity (Wasianto *et al.*, 2023). Tahajud prayer can have a relaxing and calming effect on the mind. By remembering and praying to Allah SWT, the heart becomes calm and the mind becomes clear. Performing Tahajud prayer can increase gratitude towards Allah SWT. By reflecting on the blessings that have been given, a person will become more grateful and happy. Tahajud prayer can also increase patience. By fighting against sleepiness and the temptations of the devil, one becomes more patient and steadfast in facing life's trials. Tahajud prayer can boost self-confidence. By performing Tahajud prayer regularly, one feels closer to Allah SWT, thereby feeling stronger and more confident in facing all challenges.. When experiencing stress, the body releases cortisol and adrenaline, which trigger reactions in the body such as a faster heart rate, tense muscles, faster breathing, increased blood pressure and heightened alertness.(Pranata, 2020b).

Therefore, given the problems caused by stress, tahajud prayer is the most important part of stress management. Tahajud prayer has a clear impact, although the measurement parameters still use questionnaire-based measurement tools. More specific measurements are needed at the molecular level, in line with the processes that occur in human cells. (Pranata, 2020a). Therefore, it is important to apply various effective stress management methods, one of which is non-pharmacological and spiritual therapy, namely tahajud prayer. Tahajud prayer is not only a spiritual worship, but also has significant benefits for health from a neuroendocrine perspective. Through its influence on cortisol, melatonin, endorphins, and the autonomic nervous system, Tahajud prayer can help reduce stress, improve sleep quality, enhance mood, boost cognitive function, and promote overall physical health. Therefore, Tahajud prayer can be an effective

way to maintain holistic health and well-being.

## CONCLUSION AND SUGGESTIONS

Tahajud prayer has a clear effect on stress, reducing it. Therefore, every Muslim should practise tahajud prayer to reduce problems that can trigger stress in daily life.

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