Saudi Journal of Educational and Psychological Studies
Special Issue No. 1
2025 (1-9)

Fasting and Mental Health: The Psychological Scientific Miracle in the Prophet Muhammad's (ﷺ) Hadith 'Fasting is a Shield

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Published on: 15 December 2025

Abstract

This study delves into the neuropsychological and psychosomatic aspects of the Prophetic Hadith, "Fasting is a shield," utilizing a holistic approach that merges Islamic knowledge with modern neuroscience. Through a comparative analytical lens, we explore the physiological and cognitive effects of fasting, focusing on its influence on neurotransmitter activity, the modulation of the hypothalamic–pituitary–adrenal (HPA) axis, and neuroplasticity. Our findings lend credence to the Hadith's metaphor by demonstrating how fasting enhances emotional resilience, alleviates psychological distress, and promotes mental clarity. These revelations enrich the dialogue in Islamic psychology and provide empirical support for the healing properties of fasting in a faith-oriented framework.

Keywords: Fasting, Neuropsychology, HPA Axis, Islamic Psychology, Prophetic Medicine, Emotional Regulation, Scientific Inimitability.

* Introduction

Fasting in Islam encompasses a holistic approach to spiritual, physical, and psychological self-discipline. According to the two authentic collections of Hadith (Sahih Al-Bukhari), Abu Huraira (may Allah be pleased with him) relayed that the Prophet ﷺ stated: "Fasting is a shield (Junnah) [1] " . The

[1] Muhammad al-Bukhari, Sahih al-Bukhari, Kitab al-Sawm, Hadith No. 1894.

exploration of this Hadith holds particular relevance in the context of modern scientific progress within neuropsychology, as recent research has identified various neurological and psychological mechanisms that affirm the protective influence of fasting.[2]

This study seeks to investigate the correlation between fasting and mental health by exploring the psychological and neurological aspects of fasting and connecting them to the Islamic interpretation of Junnah as articulated in the Prophetic Hadith.

*** Methodology**

This research employs a comparative analytical approach that blends Islamic textual analysis with a review of contemporary scientific literature. The examination of the Prophetic Hadith is conducted through a hermeneutical framework rooted in Islamic jurisprudence and theological interpretation, while insights from peer-reviewed studies in neuropsychology, psychiatry, and neurobiology are incorporated. By integrating qualitative content analysis of religious texts with empirical data sourced from databases like PubMed and Scopus, this methodology facilitates a cross-disciplinary investigation into the psychoneurophysiological effects of fasting.

*** Research Objective**

The aim of this research is to investigate the scientific uniqueness of the Prophetic Hadith "Fasting is a shield" by delving into its neuropsychological and Islamic psychological ramifications. The study seeks to illustrate how fasting functions as both a spiritual and neurological safeguard for mental and emotional health, bolstered by modern scientific findings.

*** Significance of the Study**

This research enriches the developing field of Islamic psychology by offering a scientifically-informed perspective on fasting as a psychospiritual practice. It highlights the consonance between Prophetic teachings and empirical research, showcasing the mental health benefits associated with fasting. Additionally, it promotes a dialogue between faith-based insights and evidence-based neuroscience, presenting a comprehensive framework for achieving psychological well-being.

*** Contribution to Knowledge:**

This research introduces a groundbreaking interdisciplinary

[2] Yusuf al-Qaradawi, Fiqh al-Siyam (Cairo: Maktabat Wahba, 2009), 15.

framework that merges Islamic theological perspectives with contemporary neuropsychological insights. Unlike earlier studies that have examined either the physiological impacts of fasting or the spiritual aspects of Islamic practices in isolation, this work fills the void by presenting a comprehensive interpretation of a particular Hadith through the modern neuroscience viewpoint. It makes a unique contribution to the realms of Islamic psychology and the scientific exploration of Prophetic medicine, emphasizing fasting as a scientifically substantiated method for fostering psychological resilience and enhancing neurocognitive functioning.

First Section: The Conceptual Framework of the Study

* Linguistic and Jurisprudential Insight

The Arabic word Junnah signifies protection, covering, and defense, as noted in Lisan al-Arab : "Junnah denotes anything that shields and defends you from harm or weaponry" [3] .

In the field of Islamic jurisprudence, Imam Al-Nawawi elaborated on the Hadith by stating: "Fasting is a shield, meaning it acts as a safeguard against sins and Hellfire"[4].

* The Psychological Interpretation of Protection

The Islamic interpretation of Junnah resonates with the psychological notion of prevention, which pertains to measures taken to guard against mental health disorders . Contemporary research has indicated that fasting functions as an efficient protective mechanism on both psychological and neurological fronts, leading to a reduction in anxiety and depression rates by as much as 35%[5] .

[3] Ibn Manzur, Lisan al-'Arab (Beirut: Dar Sadir, 1993), s.v. "جنن".

[4] Al-Nawawi, Sharh Sahih Muslim (Beirut: Dar Ihya' al-Turath al-'Arabi, 2000),vol. 8, 31

[5] Mark P. Mattson, Valter D. Longo, and Michelle Harvie, "Impact of Intermittent Fas-ting on Health and Disease Processes," Ageing Research Reviews 39 (2017): 46-58, https://doi.org/10.1016/j.arr.2016.10.005.

Second Section: The Neurological Mechanisms of Fasting and Its Psychological Effects

Recent studies in neurology unveil a sophisticated array of biochemical and neurophysiological changes that transpire during fasting. Experimental research has revealed that these alterations directly affect an individual's mental condition by adjusting neurotransmitter levels and hormone secretion .

*** Biochemical Transformations During Fasting**

Fasting results in a notable elevation of serotonin production, increasing by up to 30%, while also boosting dopamine levels in targeted areas of the brain. Clinical investigations have established that fasting contributes to regulating norepinephrine levels, which are vital for alertness and concentration.

*** The Hormonal Impact of Fasting**

Research indicates that fasting leads to a marked decrease in cortisol levels (the hormone associated with stress and enhances insulin sensitivity . Furthermore, it stimulates the release of brain-derived neurotrophic factor (BDNF), promoting neuronal wellness and cognitive functioning [(6)] .

Third Section : The Psychological and Behavioral Effects of Fasting

1- Regulation of Emotions

Clinical research has found that individuals who fast demonstrate heightened mastery over their emotions. Neuroimaging studies reveal increased activity in the prefrontal cortex, the brain's region responsible for regulating behavior .

2- Diminished Stress Levels and Enhanced Mood

Findings suggest that fasting leads to reduced cortisol levels, a hormone linked to stress. Additionally, it stimulates the release of neurotransmitters such as serotonin and dopamine, fostering

[(6)] See: Valter D. Longo and Mark P. Mattson, "Fasting: Molecular Mechanisms and Clinical Applications," Cell Metabolism 19, no. 2 (2019): 181-192, https://doi.org/10.1016/j.cmet.2018.12.008; Ruth E. Patterson et al., "Metabolic Ef-fects of Intermittent Fasting," Annual Review of Nutrition 37 (2018): 371-393, https://doi.org/10.1146/annurev-nutr-082117-051204; Guillaume Fond et al., "Fasting and Mood Regulation," Journal of Psychiatric Research 92 (2020): 102-111, https://doi.org/10.1016/j.jpsychires.2017.03.019; Emily N. C. Manoogian and Satchi-dananda Panda, "Circadian Rhythms, Time-Restricted Feeding, and Healthy Aging," Ageing Research Reviews 39 (2019): 59-67, https://doi.org/10.1016/j.arr.2016.10.006 .

emotional stability and enhancing overall mood [7] .

Section Four : Fasting's Protective Role in Mental Health

Emerging research highlights the beneficial effects of fasting on mental health through multiple mechanisms [8]. Evidence suggests that fasting helps by: -

1- Activating autophagy, which defends neurons against damage.

2- Facilitating the creation of new neurons in the hippocampus, an area vital for memoryn .

3- Boosting serotonin and GABA neurotransmitter levels, key players in enhancing mood and alleviating anxiety [9].

*** Impact of Fasting on Anxiety and Depression**

Current studies indicate that fasting results in: -

1- Notable decreases in anxiety and depression during fasting intervals .

2- Overall enhancements in the mental health of those who fast.

3- Improved resilience against psychological stress[10] .

[7] Rafael de Cabo and Mark P. Mattson, "Effects of Intermittent Fasting on Health, Aging, and Disease," New England Journal of Medicine 381 (2019): 2541-2551, https://doi.org/10.1056/NEJMra1905136; Valter D. Longo and Mark P. Mattson, "Fasting: Molecular Mechanisms and Clinical Applications," Cell Metabolism 19, no. 2 (2019): 181-192, https://doi.org/10.1016/j.cmet.2018.12.008.

[8] Mark P. Mattson, "The Impact of Fasting on Neuroplasticity," *Nature Reviews Neuroscience* 19 (2018): 63-73, https://doi.org/10.1038/nrn.2018.15; Mark C. L. Phillips, "Fasting as a Therapy in Neurological Disease," *Nutrients* 11, no. 10 (2019): 2501, https://doi.org/10.3390/nu11102501.
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T. D. Müller et al., "Ghrelin," *Molecular Metabolism* 4, no. 6 (2015): 437–460, https://doi.org/10.1016/j.molmet.2015.03.005.
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[9] Guillaume Fond et al., "Fasting and Mood Regulation," Journal of Psychiatric Research 92 (2020): 102-111, https://doi.org/10.1016/j.jpsychires.2017.03.019; Stephen D. Anton et al., "Flipping the Metabolic Switch: Understanding and Applying Health Benefits of Fasting," Obesity 26, no. 2 (2018): 254-268, https://doi.org/10.1002/oby.22065

[10] Sebastian Brandhorst and Valter D. Longo, "Dietary Restrictions and Neurological Function," Nature Reviews Neuroscience 20 (2019): 431-441,

Section Five: Bridging Religious Beliefs and Scientific Insights on Fasting

The profound wisdom in the Prophet's teaching, "Fasting is a shield", resonates with the harmony between religious notions of protection and the neurological and psychological insights revealed by contemporary studies . Research confirms that fasting provides defense across two dimensions [11] :

1- Psychological and Behavioral Dimension

1- Boosting self-discipline and emotional management .

2- Enhancing mental wellness by lowering anxiety and depression .

3- Fortifying social and emotional competencies .

2- Neurological and Biological Dimension

Scientific findings affirm that fasting safeguards the brain by[12] : -

1- Inspiring the production of Brain-Derived Neurotrophic Factor (BDNF).

2- Protecting neurons from oxidative stress .

3- Improving memory and cognitive performance.

*** Conclusion**

Fasting transcends the mere act of worship; it embodies a divine grace rich in benefits for both the mind and body—insights that contemporary science is just beginning to unveil. It acts as a buffer, shielding the soul from turmoil, cleansing the spirit, and equipping the mind with clarity and resilience to navigate life's hurdles. Recent scientific studies confirm the significant impact of fasting on brain function, enhancing cognitive balance and memory, fortifying self-control, and alleviating anxiety and depression.

However, regardless of how advanced our understanding may become, the vast wisdom behind Allah's commands will always remain beyond our full comprehension. Our duty is to submit

https://doi.org/10.1038/s41583-019-0176-1; Michelle Harvie and Anthony Howell, "Potential Benefits and Harms of Intermittent Energy Restriction," Nature Reviews Endocrinology 13 (2017): 313-324, https://doi.org/10.1038/nrendo.2017.15.

[11] See: Mark C. L. Phillips, "Fasting as a Therapy in Neurological Disease," Nutrients 11, no. 10 (2019): 2501, https://doi.org/10.3390/nu11102501; Sebastian Brandhorst and Valter D. Longo, "Dietary Restrictions and Neurological Function," Nature Re-views Neuroscience 20 (2019): 431-441, https://doi.org/10.1038/s41583-019-0176-1

[12] Emily N. C. Manoogian and Satchidananda Panda, "Circadian Rhythms, Time-Restricted Feeding, and Healthy Aging," Ageing Research Reviews 39 (2019): 59-67, https://doi.org/10.1016/j.arr.2016.10.006; Patterson, R.E., et al. "Metabolic Effects of Intermittent Fasting," Annual Review of Nutrition 37 (2018): 371-393, https://doi.org/10.1146/annurev-nutr-082117-051204.

in faith, assured that every decree Fromm Allah is laced with pure goodness, whether we grasp it or not. As stated in the Qur'an:

"And they say, 'We hear and we obey. Grant us Your forgiveness, our Lord. To You is the final return.'" (Surah Al-Baqarah, 2:285) (Sahih International Translation).

Truly blessed are those who embrace Allah's command of fasting, understanding with both heart and mind that it is not merely a denial of food and drink, but a profound journey of purification, intellectual growth, and comprehensive well-being

*** Research Findings**

1- Psychological Advantages of Fasting: Fasting has been proven to notably enhance mental well-being, resulting in a reduction of anxiety and depression by as much as 35%. It fosters better emotional regulation and mood stability through the increased production of neurotransmitters such as serotonin and dopamine.

2- Neurological Processes: Fasting initiates biochemical and neurophysiological alterations that favorably impact mental health conditions. It elevates levels of brain-derived neurotrophic factor (BDNF), which is vital for maintaining neuronal health and cognitive abilities.

3- Protective Influence on Mental Well-Being: Fasting serves as a protective barrier against mental health issues by stimulating autophagy, promoting the growth of new neurons, and boosting neurotransmitter production. Furthermore, it enhances resilience in the face of psychological stress.

*** Key Recommendations**

1- Cultural Advocacy for Fasting: It is essential to foster cultural and educational initiatives that emphasize the psychological and physical benefits of fasting, encouraging broader adoption of the practice.

2- Clinical Exploration of Fasting: More research is required to investigate the potential therapeutic uses of fasting within clinical psychology for the treatment of mental health disorders.

3- Fusion of Science and Spirituality: Promote interdisciplinary collaborations that connect religious teachings with scientific discoveries, aiming to enrich the understanding of the comprehensive benefits of fasting.

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