

JOURNAL OF HALAL QUALITY AND CERTIFICATION

Halalopathy and Lifestyleopathy: Integrating Ethical and Scientific Principles in Personalized Medicine

Jawad Alzeer

Swiss Scientific Society for Developing Countries, Zürich, Switzerland

Corresponding author: Jawad Alzeer

Email address: zeer@ppu.edu

Preview paper



ABSTRACT

Personalized medicine has significantly advanced through genetic and molecular precision but often overlooks the ethical, cultural, and spiritual dimensions that shape patient engagement and therapeutic success. This manuscript introduces two integrative frameworks—Lifestyleopathy, which views health as the dynamic regulation of potential energy and entropy through lifestyle choices, and Halalopathy, which extends this model within an Islamic ethical paradigm by aligning medical interventions with the principles of Halal (permissible) and Tayyib (pure and clean). To operationalize these concepts, we propose the Epigenetic Faith-Lifestyle Resonance (EFLR) to describe the dynamic synergy fostering therapeutic coherence. Halalopathy emphasizes faith-compatible pharmacotherapy, integrating therapeutic efficacy, ethical compatibility, and placebo-trust effects to enhance immune function and support complete recovery. Furthermore, institutional strategies for global Halal pharmaceutical certification, ethical pharmaceutical innovation, and professional education are outlined to mainstream Halalopathy as a scalable model of ethical pluralism in healthcare. By harmonizing scientific rigor with spiritual integrity, this approach redefines healing as a collaborative process of biological, ethical, and cultural coherence, fostering trust, adherence, and improved health outcomes.

Keywords: Lifestyleopathy, Halalopathy, Personalized Medicine, Entropy regulation, Halal pharmaceutical certification

Introduction

Personalized medicine has transformed healthcare by enabling treatments to be tailored to each patient's unique genetic profile, molecular markers, and risk factors. This has led to more precise diagnoses and improved treatment outcomes. Yet, an important dimension is often overlooked: the ethical, cultural, and spiritual values that deeply influence how patients

experience illness and recovery (Chadwick, 2017). For many people, healing goes beyond simply addressing biological problems. Effective care often requires a holistic approach that respects personal beliefs and lifestyle choices. When healthcare professionals overlook these aspects, it can erode trust, reduce adherence to treatment, and ultimately impact health outcomes.

In many communities, religious and ethical values are central to daily life. Ignoring these factors can make even the most advanced medical care feel incomplete or disconnected from patients' real needs. Despite significant scientific progress, the current biomedical model sometimes fails to consider the moral and cultural frameworks that shape health behaviors (Caplan, 2012). Recognizing this gap, researchers have called for a more inclusive approach that integrates scientific knowledge with ethical and cultural sensitivity. In response, two innovative frameworks have emerged: Lifestyleopathy and Halalopathy (Alzeer, 2025a; Alzeer, 2024a).

Lifestyleopathy focuses on the balance between order and disorder in the body, emphasizing how lifestyle choices, environmental factors, and personal habits affect health. It encourages individuals to take an active role in managing their health by making informed decisions about diet, stress, and other daily behaviors (Alzeer, 2023b).

Halalopathy builds on this concept within the context of Islamic healthcare. It stresses the importance of treatments that are both Halal (permissible) and Tayyib (pure and clean), addressing concerns about religious and culturally sensitive practices. For many Muslims, medical care is most effective when it aligns with their moral values as well as scientific evidence.

Both frameworks highlight the need for a more holistic, patient-centered approach to healthcare—one that respects the diverse ethical, cultural, and spiritual dimensions that matter to individuals. By bridging the gap between advanced science and personal values, we can foster greater trust, improve adherence, and ultimately achieve better health outcomes for all.

Conceptual foundations

Lifestyleopathy: Health as entropy regulation

Lifestyleopathy is based on the idea that health is fundamentally governed by the second law of thermodynamics. In this view, living organisms are open systems that constantly exchange energy and matter with their environment. Health is not a fixed state, but rather a dynamic balance between high potential energy and low entropy,

reflecting the ongoing effort to maintain internal order against the natural tendency toward disorder (Alzeer, 2024b). Every metabolic process—such as breathing, digestion, nutrient absorption, and movement—involves converting potential energy into work, which inevitably produces entropy as a byproduct (Alzeer, 2022a). The body's ability to capture and use energy efficiently while minimizing entropy is central to maintaining order and resilience.

From this thermodynamic perspective, Lifestyleopathy serves as a framework for managing energy inputs and outputs to support optimal biological function. Lifestyle factors such as nutrition, physical activity, rest, stress management, and environmental exposures are not just healthy habits—they are essential regulators of the body's energy reserves and entropy levels (Alzeer, 2022b).

Making positive lifestyle choices helps maximize the intake of high-quality energy sources and supports efficient energy use for growth, repair, and maintenance. This leads to a state of lower entropy and greater order. On the other hand, unhealthy lifestyle patterns can result in poor energy utilization, increased entropy, and greater risk of inflammation, metabolic dysfunction, and overall decline in health (Mak et al., 2018). By addressing the root causes that affect energy balance and entropy, Lifestyleopathy offers a proactive approach to maintaining health and preventing disease, rather than simply reacting to illness after it occurs (Natalucci et al., 2023).

The strength of Lifestyleopathy lies in its grounding in basic thermodynamic principles, which apply to all living systems regardless of culture, geography, or socioeconomic status. The goal is to maintain a balance between energy input and entropy production—a universal challenge for all organisms. This framework is adaptable, drawing from concepts like core bioenergetic balance, energy efficiency, and waste removal, and can be tailored to individual and community needs.

Scientific evidence increasingly supports the importance of lifestyle in regulating energy and entropy. For example, regular physical activity

boosts energy production and reduces entropy, while nutrient-rich diets support efficient metabolism and cellular repair. By contrast, sedentary behavior and poor nutrition increase entropy and contribute to disease (Alzeer, 2024c).

In summary, Lifestyleopathy provides a scientific, actionable approach to health that empowers individuals and communities to make informed choices. By focusing on the regulation of energy and entropy through lifestyle, it offers a holistic strategy for promoting resilience, preventing disease, and supporting overall well-being.

Halalopathy: Faith-compatible healing in islamic healthcare

Halalopathy is grounded in the same fundamental scientific principles as Lifestyleopathy, emphasizing the importance of entropy regulation and the impact of lifestyle choices on health outcomes. However, Halalopathy adapts these principles to address the unique ethical, spiritual, and practical framework of Islam, aiming to support disease prevention and promote a more holistic recovery process for Muslim individuals. Recognizing that health-related decisions are often closely linked to religious beliefs, Halalopathy posits that aligning healthcare practices with these values can significantly enhance both physical and spiritual well-being (Alzeer, 2024a).

Similar to Lifestyleopathy, Halalopathy emphasizes optimizing nutrition, physical activity, rest, stress management, and environmental factors. However, it ensures that these domains are approached in accordance with Halal and Tayyib standards (Alzeer et al., 2018). This involves not only choosing permissible foods, but also engaging in physical and spiritual activities that are consistent with Islamic teachings. For example, Halalopathy encourages practices such as prayer, mindfulness, and seeking environments that support spiritual reflection. It also emphasizes managing stress in ways that are compatible with Islamic values, thereby supporting resilience and well-being. By integrating these faith-specific considerations, Halalopathy aims to create a lifestyle that is

harmoniously aligned with Islamic teachings, thus strengthening the body's natural defenses and promoting a more comprehensive healing process when illness occurs (Alzeer, 2022c).

The ultimate goal of Halalopathy, through its targeted application of Lifestyleopathy principles, is twofold: first, to empower Muslims to adopt preventive lifestyles by adhering to Islamic guidance on purity, moderation, and well-being; and second, to ensure that when medical treatment is required, it is delivered in a manner that respects religious beliefs and fosters trust and adherence. This approach contributes to a more holistic and spiritually integrated healthcare experience. By addressing both physical and spiritual dimensions, Halalopathy seeks to optimize overall health outcomes and support greater well-being in accordance with Islamic values (Miller and Thoresen, 2003).

Clinical implications & application

Faith-compatible pharmacotherapy in practice

Halalopathy extends beyond simply prescribing permissible substances; it seeks to build a strong, collaborative relationship between patients and their medical treatment, promoting active patient engagement in the recovery process. This approach recognizes that healing involves more than just addressing biological factors-it also requires alignment with the patient's deeply held values and lived experiences (Alzeer, 2021).

A key aspect of Halalopathy is ensuring that medical treatments are compatible with Halal and Tayyib principles. When therapies are consistent with daily routines, ethical beliefs, and spiritual practices, they foster internal harmony and create a supportive environment that enhances the effectiveness of medical interventions. This alignment can improve patient trust and satisfaction, which are crucial for optimal therapeutic outcomes. Halalopathy also emphasizes that achieving complete recovery involves the patient's conscious and active participation in their own healing. By empowering patients to take an active role, the approach incorporates additional therapeutic dimensions that go beyond the direct biochemical effects of medicine.

Active patient involvement can facilitate beneficial interactions among various healing mechanisms. Integrating medical treatment with ethical and lifestyle values produces a “compatibility effect,” which supports psychological coherence and emotional engagement. At the same time, the trust developed through respectful and transparent communication can strengthen the “placebo effect”—a well-documented phenomenon known to positively influence immune function and neurobiological pathways (Finniss et al., 2010; Colloca and Miller, 2011).

Halalopathy conceptualizes these effects not as isolated events, but as interconnected processes, where:

- The therapeutic effect can directly address biological dysfunction at the molecular level.
- The compatibility effect also integrates treatment with the patient’s personal and spiritual identity.
- The placebo effect, supported by patient trust and belief, enhances the body’s overall readiness to heal.

While pharmacotherapy is essential for treating specific medical conditions, Halalopathy recognizes that the primary driver of recovery is the body’s innate capacity for self-healing, particularly through the immune system. This coordinated synergy between medicine and faith-based practices supports and boosts immune efficiency (Figure 1).

Furthermore, Halalopathy considers the influence of psychosocial and spiritual factors on healing. These factors can modulate immune function, promote biological order, and accelerate the recovery process.

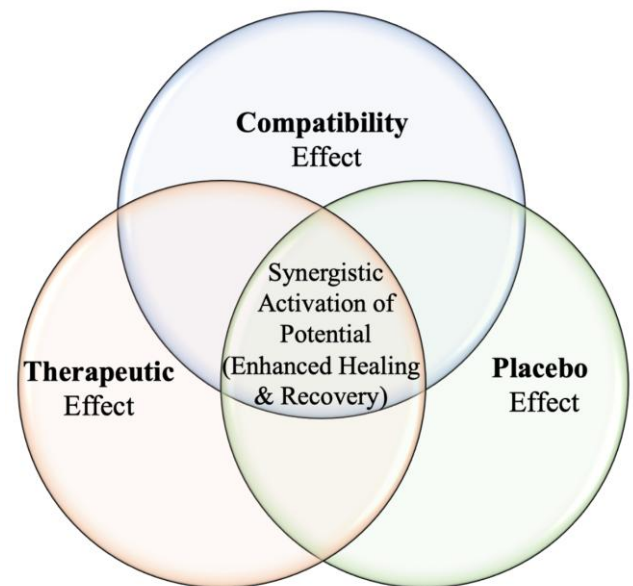


Figure 1: Synergy Model of Halalopathy: Therapeutic, Compatibility, and Placebo-Trust Effects

In summary, Halalopathy promotes a holistic, cooperative approach to healing—one that integrates medical interventions with patients’ values and beliefs, aiming for comprehensive recovery rather than just symptom management. This model highlights the importance of addressing biological, psychological, and spiritual factors together. By supporting both the physical and non-physical aspects of health, Halalopathy contributes to improved well-being and long-term recovery (Zhang et al., 2020).

Ultimately, Halalopathy underscores that true healing is not limited to treating disease, but involves fostering a therapeutic alliance that respects and incorporates the patient’s ethical and spiritual framework, leading to more meaningful and sustained health outcomes.

The Bio-ethical alignment of healing: Introducing the Epigenetic Faith-Lifestyle Resonance (EFLR)

Personalized medicine has made significant advances by tailoring treatments to individual genetic profiles. However, it often overlooks the profound impact of lifestyle choices, personal values, and beliefs on health outcomes. The Epigenetic Faith-Lifestyle Resonance (EFLR) framework addresses this gap by integrating genetic insights with lived experiences, aiming to

ensure that therapies are aligned not only with biological needs but also with psychological, social, and spiritual dimensions.

Recent research highlights that aligning genetic information with individual experiences can enhance both the efficacy and adherence of therapeutic interventions (Alzeer, 2025b). EFLR specifically maps how gene expression is influenced by lifestyle and faith-based behaviors. Factors such as nutrition, physical activity, sleep, and stress management have demonstrated direct effects on the epigenome, revealing limitations in conventional personalized medicine approaches that do not sufficiently account for these variables (Alzeer and Benmerbat, 2023).

Faith-based practices can also modulate stress and promote resilience, potentially influencing biological processes through mechanisms such as hormonal regulation and neuroendocrine stability. For example, religious rituals like fasting can enhance metabolic efficiency and support cellular repair mechanisms, while structured prayer may help regulate circadian rhythms and hormonal balance (Jaber et al., 2024). These observations suggest that belief-driven behaviors act as biological modulators, underscoring the need for healthcare frameworks-such as Halalopathy-that integrate religious and spiritual dimensions into patient care (Figure 2) (Alzeer, 2023b).

The EFLR framework offers a model for biologically effective, lifestyle-compatible, and ethically sensitive care (Alzeer, 2025c). By recognizing the interplay between physiological processes and emotional, spiritual, and cognitive factors, EFLR aims to optimize healing and improve patient adherence. Treatments designed with EFLR principles may yield more meaningful and sustainable outcomes by honoring individual belief systems and supporting holistic well-being (Sloan et al., 2022). When healthcare providers respect the values and faith of their patients, they foster a therapeutic alliance that supports not only biological healing but also emotional and spiritual resilience (Seetharaman et al., 2021). This multifaceted approach may reduce stress, enhance immune function, and accelerate

recovery, ultimately resulting in improved patient outcomes.

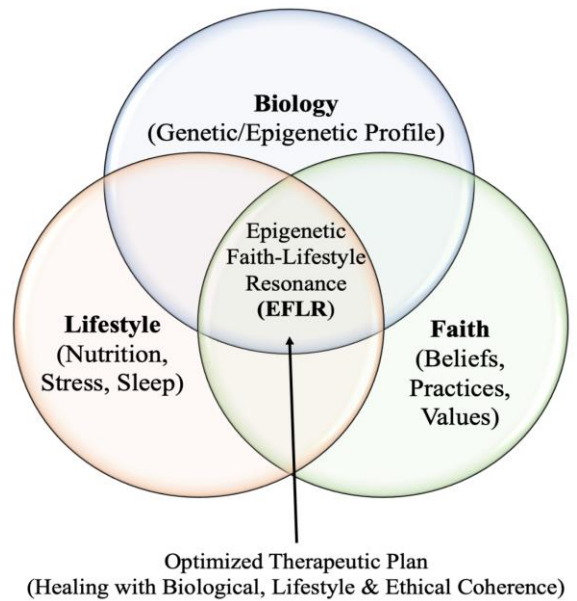


Figure 2: Epigenetic Faith-Lifestyle Resonance (EFLR): Integrating Biology, Lifestyle, and Faith for Value-Aligned Therapeutic Decisions

By integrating genetic, lifestyle, and faith-based factors, the EFLR framework provides a comprehensive, patient-centered approach to healing. This alignment with patients’ ethical and spiritual convictions can profoundly enhance the effectiveness and personal relevance of medical care (McSwan et al., 2021).

Institutional Strategies for Halalopathy Integration

Building on the foundational concepts of Lifestyleopathy and the faith-based framework of Halalopathy, fully realizing the potential of these approaches requires their systematic integration into the broader healthcare landscape. For lifestyle-compatible, ethically grounded medicine to move beyond theory, it must become an integral part of research protocols, regulatory standards, educational programs, and patient engagement strategies. This section identifies and discusses the key strategic pillars necessary for positioning Halalopathy as a central model of ethical and personalized healthcare.

Global Halal pharmaceutical certification

Building on the principles of Lifestyleopathy and Halalopathy, fully realizing their potential requires addressing the current fragmentation in the Halal pharmaceutical sector. This can be achieved by developing a globally harmonized certification system that integrates recent research on comprehensive Halal-Tayyib positive list for both ingredients and manufacturing processes. Such a framework should go beyond basic ingredient verification to include rigorous standards for manufacturing integrity, supply chain traceability, and ethical sourcing, thereby enhancing transparency and trust throughout the pharmaceutical supply chain (Alzeer et al., 2025).

Implementing this vision will require close collaboration among Islamic scholars, pharmaceutical scientists, bioethicists, and regulatory authorities. These stakeholders must work together to establish clear guidelines and secure regulatory approval, paving the way for the widespread clinical adoption of this ethical and personalized healthcare model. Ultimately, the goal is to improve access to medications that are consistent with Islamic values, thereby supporting the health and well-being of Muslim patients worldwide.

R&D Priorities: Ethical pharmaceutical innovation

Building on the principles of ethical and personalized healthcare, the future of faith-aligned pharmaceuticals requires a proactive and comprehensive approach to innovation—one that goes beyond simply identifying permissible substitutes. Research and development should prioritize the design of pharmaceuticals that comply with Halal-Tayyib standards from the outset, integrating ethical considerations early in the drug development process. This approach is particularly relevant in the application of synthetic biology, which offers innovative methods to create medications that meet dietary laws while also addressing evolving consumer needs (Turpal, 2023).

A key aspect of advancing ethical pharmaceutical innovation is the development of synthetic and plant-based excipients to replace animal-derived

components—a topic that has generated significant interest in recent scientific literature. The move toward natural polymers as pharmaceutical excipients is especially promising, as these materials offer sustainable alternatives to conventional excipients often sourced from animals. Natural polymers are valued for their abundance, affordability, and biodegradability, and their use represents an ethical advancement in pharmaceutical formulation (Saha et al., 2018). This shift toward plant-based materials also aligns with increasing consumer demand for cruelty-free and Halal products (Constantinides et al., 2016).

Recent progress in biological therapies, such as nanomedicine for targeted drug delivery using biocompatible and ethically sourced materials, further highlights the potential for innovation in this field. Advances in synthetic biology have enabled the engineering of genetic circuits and biotherapeutics that provide targeted treatments, reduce side effects, and enhance therapeutic efficacy (Jain et al., 2012). Additionally, green chemistry principles for sustainable pharmaceutical development complement Halal standards by ensuring that production processes are environmentally friendly and uphold ethical values.

The development of biologically based Halal therapeutics, including advanced therapies such as biologics and nanomedicines, represents a significant advancement by enabling tailored treatments that address disease mechanisms without ethical dilemmas. Current frameworks are already demonstrating success in developing emerging therapeutics that adhere to Halal standards while improving bioavailability and minimizing adverse reactions.

To fully realize the potential of Halalopathy in this innovative landscape, it is imperative to establish a supportive research infrastructure guided by Halal-Tayyib principles. This will enable the development of ethically sound and scientifically validated medicines, ultimately facilitating the availability of faith-compatible pharmaceutical solutions for a wide range of patient populations (Charbonneau et al., 2020).

Academic & professional education

Building on the ethical and personalized healthcare frameworks established by Lifestyleopathy and Halalopathy, advancing clinical implementation requires a fundamental shift in academic and professional education. To ensure healthcare professionals possess the necessary expertise—an area currently underserved in formal training on Halal medical ethics—it is essential to integrate Halalopathy into medical and pharmacy curricula.

This progressive educational approach should encompass dedicated courses on Islamic bioethics and Halal-compliant therapeutics, as well as mandatory continuing education programs for practicing clinicians. Additionally, the development of advanced clinical decision support tools for prescribing faith-compatible medications will further enhance clinical practice. By elevating provider knowledge in this domain, Halalopathy can move beyond being a mere accommodation, becoming an intrinsic component of truly patient-centered care.

Patient empowerment & public health engagement

To optimize patient engagement in their healing process within the Halalopathy framework, it is essential to prioritize active patient participation in health management. The most effective initial digital health tools to support this goal include AI-powered medication checkers that provide immediate, faith-based verification of pharmaceutical products; secure tele-consultation platforms that connect patients with culturally competent healthcare practitioners; and interactive symptom trackers that incorporate faith-based reminders into daily health routines. These tools collectively ensure that patients have access to clear, reliable information regarding faith-compatible pharmaceutical options, thereby empowering them to make informed and autonomous health decisions.

Global implications & ethical pluralism in healthcare

The frameworks of Lifestyleopathy and Halalopathy exemplify the movement toward

ethical and personalized healthcare. Halalopathy, in particular, offers a scalable approach for a globally connected world characterized by diverse ethical, cultural, and spiritual identities. This approach aligns with the concept of **medical pluralism**, which recognizes the coexistence of multiple medical systems—such as conventional biomedicine, traditional medicine, and complementary and alternative therapies—within a single society. Medical pluralism emphasizes the importance of patient autonomy, advocating for individuals to make informed choices based on their own ethical and cultural values (Lahey and Nelson, 2019).

Integrating various healthcare paradigms is essential for addressing the complex and multifaceted needs of patients. This integration enhances patient-centered care by respecting individual beliefs and preferences, ultimately leading to improved health outcomes (Wedgeworth and Cody, 2023).

Halalopathy, grounded in Islamic ethical principles, serves as a concrete example of how belief-based medical systems can be incorporated within a pluralistic healthcare framework. By aligning healthcare delivery with patients' spiritual and moral values, Halalopathy fosters therapeutic relationships that support physiological, psychological, and spiritual well-being. Recognizing the influence of cultural context, this approach demonstrates how values-driven care can address the holistic needs of patients. Evidence suggests that attending to patients' spiritual and emotional dimensions can significantly enhance satisfaction and health outcomes (Morland et al., 2022).

Importantly, the principle of aligning healthcare with patient values is not exclusive to Islam. It sets a precedent for developing similar belief-based models across different traditions, enabling diverse populations to maintain their health without compromising their conscience in a pluralistic society (Surbakti et al., 2024).

Halalopathy also contributes to the evolution of global bioethics by challenging the dominance of secular biomedical models and advocating for ethical pluralism. This approach stresses the

importance of moral coherence-integrating ethical considerations into pharmaceutical development and redefining quality in healthcare to include alignment with human values. By engaging underserved communities and respecting their cultural and spiritual needs, Halalopathy helps to reduce global health disparities and build trust in healthcare systems.

For academia and research, models like Halalopathy encourage critical exploration at the intersection of belief, biology, and clinical outcomes. They demonstrate that scientific rigor and spiritual integrity can coexist, fostering more inclusive, effective, and humane healthcare solutions. As global medicine increasingly prioritizes personalized and patient-centered care, operationalizing ethical pluralism is becoming essential for establishing best practices in healthcare delivery (Rykkje et al., 2021).

Conclusion

The integration of ethical, cultural, and spiritual dimensions into personalized medicine is no longer optional but essential for delivering truly patient-centered care. This manuscript has introduced Lifestyleopathy as a universal framework for health optimization through the regulation of potential energy and entropy via lifestyle choices, and Halalopathy as its faith-centered extension, aligning medical interventions with the principles of Halal and Tayyib. By proposing the Epigenetic Faith-Lifestyle Resonance (EFLR) to capture the dynamic synergy between belief systems, lifestyle behaviors, and biological processes, this approach redefines healing as a collaborative process of biological, ethical, and cultural coherence. Beyond the Muslim context, Halalopathy offers a scalable model for ethical pluralism in healthcare, fostering trust, enhancing treatment adherence, and improving health outcomes across diverse populations. Institutional strategies such as global Halal pharmaceutical certification, ethical pharmaceutical innovation, and faith-aligned education are crucial for mainstream adoption. Ultimately, by harmonizing scientific precision with spiritual integrity, Halalopathy and Lifestyleopathy bridge the gap between modern

medicine and human values, advancing a holistic, inclusive vision of health and healing in the 21st century.

References:

- Alzeer, J. (2025a), "Lifestyleopathy as personalized medicine: A holistic approach to health", *Medical Research Archives*, Vol. 13 No. 1. <https://doi.org/10.18103/mra.v13i1.6209>.
- Alzeer, J. (2025b), "Personalized health through epigenetics: The Lifestyleopathy approach", *Medical Research Archives*, Vol. 13 No. 4. <https://doi.org/10.18103/mra.v13i4.6435>.
- Alzeer, J. (2025c), "Lifestyleopathy and ethical pharmaceuticals: A Halalopathy perspective", *Medical Research Archives*, Vol. 13 No. 3. <https://doi.org/10.18103/mra.v13i3.6384>.
- Alzeer, J., Abou Hadeed, K. and Tufail, F. (2025), "The halal positive list: Streamlining the path to certification", *Halalsphere*, Vol. 5 No. 1, pp. 1–7. <https://doi.org/10.31436/hs.v5i1.109>.
- Alzeer, J. (2024a), "Holistic approach to personalised medicine: A focus on halalopathy", *Halalsphere*, Vol. 4 No. 2, pp. 22–28. <https://doi.org/10.31436/hs.v4i2.97>.
- Alzeer, J. (2024b), "Harnessing the power of choice: How to thrive in a universe of entropy", *American Journal of Medicinal Chemistry*, Vol. 5 No. 1, pp. 2–6. <https://doi.org/10.31487/j.AJMC.2024.01.02>.
- Alzeer, J. (2024c), "Lifestyleopathy: A holistic approach to healthcare", *Journal of Alternative Medicine and Therapy*, Vol. 1 No. 1, pp. 1–4. <https://doi.org/10.59462/jamt.1.1.101>.
- Alzeer, J. (2024d), "Holistic approach to personalized medicine: A focus on halalopathy", *Halalsphere*, Vol. 4 No. 2, pp. 22–28. <https://doi.org/10.31436/hs.v4i2.97>.

- Alzeer, J. and Benmerabet, H. (2023), “The development of human personality: A comprehensive overview”, *Psychological Disorders and Research*, pp. 1–8. <https://doi.org/10.31487/j.pdr.2023.01.01>.
- Alzeer, J. (2023a), “Lifestyleopathy: Unlocking potential by embracing duality and homeostasis for improved healthcare”, *International Journal of Regenerative Medicine*, pp. 1–6. <https://doi.org/10.31487/j.rgm.2023.02.02>.
- Alzeer, J. (2023b), “Integrating medicine with lifestyle for personalized and holistic healthcare”, *Journal of Public Health and Emergency*, Vol. 7, p. 33. <https://doi.org/10.21037/jphe-23-71>.
- Alzeer, J. (2022a), “Halalopathy: Improving potential energy and minimizing entropy offer an integrative approach for more effective treatment”, *MCMS*. <https://doi.org/10.55162/mcms.02.027>.
- Alzeer, J. (2022b), “Halalopathy: Role of entropy in the aging process”, *American Journal of Biomedical Science and Research*, Vol. 16 No. 2, pp. 147–154. <https://doi.org/10.31487/j.ajmc.2023.01.02>.
- Alzeer, J. (2022c), “Halalopathy: Stimulation of the immune system through enrichment of potential energy”, *International Journal of Regenerative Medicine*, pp. 1–5. <https://doi.org/10.31487/j.rgm.2022.01.02>.
- Alzeer, J. (2021), “Permissible medicine and rationalization of halal pharma”, *Halalsphere*, Vol. 1 No. 1, pp. 43–52. <https://doi.org/10.31436/hs.v1i1.18>.
- Alzeer, J. (2019), “Halalopathy: A science of trust in medicine”, *Journal of Integrative Medicine*, Vol. 17 No. 3, pp. 150–154. <https://doi.org/10.1016/j.joim.2019.03.005>.
- Alzeer, J., Rieder, U. and Abou Hadeed, K. (2018), “Rational and practical aspects of Halal and Tayyib in the context of food safety”, *Trends in Food Science & Technology*, Vol. 71, pp. 264–267. <https://doi.org/10.1016/j.tifs.2017.10.020>.
- Caplan, A. (2012), “Without an adequate ethical infrastructure, the road to personalized medicine will be rocky at best”, *Clinical Pharmacology & Therapeutics*, Vol. 92 No. 4, pp. 411–412. <https://doi.org/10.1038/clpt.2012.142>.
- Chadwick, R. (2017), “What’s in a name: Conceptions of personalized medicine and their ethical implications”, *Lato Sensu Revue De La Société De Philosophie Des Sciences*, Vol. 4 No. 2, pp. 5–11. <https://doi.org/10.20416/lrsrps.v4i2.893>.
- Charbonneau, M., Isabella, V., Li, N. and Kurtz, C. (2020), “Developing a new class of engineered live bacterial therapeutics to treat human diseases”, *Nature Communications*, Vol. 11 No. 1. <https://doi.org/10.1038/s41467-020-15508-1>.
- Colloca, L. and Miller, F. (2011), “Harnessing the placebo effect: The need for translational research”, *Philosophical Transactions of the Royal Society B: Biological Sciences*, Vol. 366 No. 1572, pp. 1922–1930. <https://doi.org/10.1098/rstb.2010.0399>.
- Constantinides, P., Chakraborty, S. and Shukla, D. (2016), “Considerations and recommendations on traditional and non-traditional uses of excipients in oral drug products”, *AAPS Open*, Vol. 2 No. 1. <https://doi.org/10.1186/s41120-016-0004-3>.
- Finniss, D., Kaptchuk, T., Miller, F. and Benedetti, F. (2010), “Biological, clinical, and ethical advances of placebo effects”, *The Lancet*, Vol. 375 No. 9715, pp. 686–695. [https://doi.org/10.1016/s0140-6736\(09\)61706-2](https://doi.org/10.1016/s0140-6736(09)61706-2).
- Jaber, D., Hasan, H., Alkaderi, A., Alkilani, A. and El-Sharif, A. (2024), “Assessment of the knowledge, attitude, and perception of healthcare providers regarding halal pharmaceuticals”, *The Open Public Health Journal*, Vol. 17 No. 1. <https://doi.org/10.2174/0118749445296459240322064212>.

- Jain, A., Bhatia, P. and Chugh, A. (2012), “Microbial synthetic biology for human therapeutics”, *Systems and Synthetic Biology*, Vol. 6 Nos. 1–2, pp. 9–22. <https://doi.org/10.1007/s11693-012-9092-0>.
- Lahey, T. and Nelson, W. (2019), “A dashboard to improve the alignment of healthcare organization decision-making to core values and mission statement”, *Cambridge Quarterly of Healthcare Ethics*, Vol. 29 No. 1, pp. 156–162. <https://doi.org/10.1017/s0963180119000884>.
- Mak, Y., Kao, A., Tam, L., Tse, V., Tse, D. and Leung, D. (2018), “Health-promoting lifestyle and quality of life among Chinese nursing students”, *Primary Health Care Research & Development*, Vol. 19 No. 6, pp. 629–636. <https://doi.org/10.1017/s1463423618000208>.
- McSwan, J., Gudin, J., Song, X., Plapler, P., Betteridge, N., Kechemir, H. and Pickering, G. (2021), “Self-healing: A concept for musculoskeletal body pain management – Scientific evidence and mode of action”, *Journal of Pain Research*, Vol. 14, pp. 2943–2958. <https://doi.org/10.2147/jpr.s321037>.
- Miller, W. and Thoresen, C. (2003), “Spirituality, religion, and health: An emerging research field”, *American Psychologist*, Vol. 58 No. 1, pp. 24–35. <https://doi.org/10.1037/0003-066x.58.1.24>.
- Morland, M., McSherry, W. and Rykkje, L. (2022), “Understanding spiritual care— Perspectives from healthcare professionals in a Norwegian nursing home”, *Religions*, Vol. 13 No. 3, p. 239. <https://doi.org/10.3390/rel13030239>.
- Natalucci, V., Marmondi, F., Biraghi, M. and Bonato, M. (2023), “The effectiveness of wearable devices in non-communicable diseases to manage physical activity and nutrition: Where we are?”, *Nutrients*, Vol. 15 No. 4, p. 913. <https://doi.org/10.3390/nu15040913>.
- Rykkje, L., Søvnik, M., Ross, L., McSherry, W., Cone, P. and Giske, T. (2021), “Educational interventions and strategies for spiritual care in nursing and healthcare students and staff: A scoping review”, *Journal of Clinical Nursing*, Vol. 31 Nos. 11–12, pp. 1440–1464. <https://doi.org/10.1111/jocn.16067>.
- Saha, T., Masum, Z., Mondal, S. and Hossain, M. (2018), “Application of natural polymers as pharmaceutical excipients”, *Global Journal of Life Sciences and Biological Research*, Vol. 4 No. 1. <https://doi.org/10.35248/gjlsbr.2018.4.1>.
- Seetharaman, M., Krishnan, G. and Schneider, R. (2021), “The future of medicine: Frontiers in integrative health and medicine”, *Medicina*, Vol. 57 No. 12, p. 1303. <https://doi.org/10.3390/medicina57121303>.
- Sloan, D., BrintzenhofeSzoc, K., Mistretta, E., Cova, J., Li, L., Willis, G. and Berger, A. (2022), “What does the word healing mean to you? Perceptions of patients with life-limiting illness”, *Palliative & Supportive Care*, Vol. 22 No. 3, pp. 577–581. <https://doi.org/10.1017/s1478951522000839>.
- Surbakti, S., Harahap, R. and Hasanah, U. (2024), “Future perspectives on the Islamic personality model: Integrating spiritual, moral, intellectual, social, personal, and behavioral dimensions for holistic development”, *JOIS*, Vol. 1 No. 1, pp. 17–35. <https://doi.org/10.35335/7adqms82>.
- Turpal, K. (2023), “Synthetic biology as a breakthrough direction in the creation of biological systems”, *BIO Web of Conferences*, Vol. 76, p. 07002. <https://doi.org/10.1051/bioconf/20237607002>.
- Wedgeworth, M. and Cody, S. (2023), “Spirituality and health outcomes within the context of social determinants of health”, *Nursing*, Vol. 53 No. 11, pp. 41–45. <https://doi.org/10.1097/01.nurse.0000978888.90787.38>.

Zhang, N., Li, X., Ye, J., Yang, Y., Huang, Y., Zhang, X. and Xiao, M. (2020), "Effect of gellan gum and xanthan gum synergistic interactions and plasticizers on physical

properties of plant-based enteric polymer films", *Polymers*, Vol. 12 No. 1, p. 121. <https://doi.org/10.3390/polym12010121>.

Halalopatija i Lifestyleopatija: Integracija etičkih i naučnih principa u personaliziranoj medicini

Jawad Alzeer

Švicarsko naučno društvo za zemlje u razvoju, Zürich, Švicarska

Autor za korespondenciju: Jawad Alzeer

E-mail adresa: zeer@ppu.edu

Pregledni rad

Sažetak

Personalizirana medicina značajno je napredovala kroz genetsku i molekularnu preciznost, ali često zanemaruje etičke, kulturne i duhovne dimenzije koje oblikuju angažman pacijenata i uspješnost terapije. Ovaj rukopis predstavlja dva integrativna okvira—Lifestyleopathy (bolesti stila života), koji zdravlje posmatra kao dinamičku regulaciju potencijalne energije i entropije putem životnih navika, i Halalopathy, koji proširuje ovaj model unutar islamskog etičkog okvira usklađujući medicinske intervencije s principima Halal (dozvoljeno) i Tayyib (čisto i dobro). Kako bismo operacionalizirali ove koncepte, predlažemo model Epigenetske Rezonance Vjere i Životnog Stila (EFLR), koji opisuje dinamičnu sinergiju koja podstiče terapijsku usklađenost. Halalopatija naglašava farmakoterapiju usklađenu s vjerom, integrirajući terapijsku efikasnost, etičku kompatibilnost i placebo-efekte povjerenja u cilju jačanja imunološke funkcije i potpune oporavka. Nadalje, izložene su institucionalne strategije za globalnu certifikaciju halal farmaceutskih proizvoda, etičke farmaceutske inovacije i profesionalno obrazovanje, s ciljem da se Halalopatija uvede kao skalabilni model etičkog pluralizma u zdravstvenoj zaštiti. Usklađujući naučnu preciznost s duhovnim integritetom, ovaj pristup redefiniše iscjeljenje kao zajednički proces biološke, etičke i kulturne usklađenosti, podstičući povjerenje, pridržavanje terapije i bolje zdravstvene ishode.

Ključne riječi: Lifestyleopathy, Halalopatija, personalizirana medicina, regulacija entropije, halal certifikacija lijekova.
