

Reconstructing Islamic Bioethics as A Lakatosian Research Programme

Muhammad Dhiaul Fikri

Universitas Darussalam Gontor
fikri68688@gmail.com

Muhamad Wildan Arif Amrulloh

Universitas Darussalam Gontor
muhammadwildan@unida.gontor.ac.id

Ana Mulyana

Pondok Modern Asy-Syifa, Balikpapan
ana26121995@gmail.com

Abstract

Contemporary Islamic bioethics has largely evolved through case-based juridical responses, resulting in perceptions of fragmentation and limited theoretical integration within the global bioethical discourse. This article addresses the epistemic gap underlying this condition by proposing a structural reconstruction of Islamic bioethics, inspired by Imre Lakatos's Methodology of Scientific Research Programs (MSRP). The study aims to demonstrate how Islamic bioethics can be conceptualized not merely as a collection of fatwas, but also as a coherent normative research program with an identifiable theoretical core and adaptive methodological mechanisms. Through normative-philosophical and conceptual analyses grounded in Islamic legal theory and the philosophy of science, the paper maps key components of Islamic ethical reasoning onto categories derived from Lakatos. Findings indicate that Islamic bioethics maintains a stable hard core rooted in theological-ontological commitments such as the sanctity of life and the prohibition of harm, while tools of *ijtihad*, including *maqāṣid al-shari'ah*, legal maxims, and doctrines of necessity, serve as a dynamic protective belt. Furthermore, the structure of *darūriyyāt al-khams* functions heuristically in both affirmative (*wujūdān*) and preventive (*'adaman*) modes, guiding ethical innovation while safeguarding foundational commitments. This reconstruction repositions Islamic bioethics as a progressive normative program capable of systematic development, thereby enhancing its methodological legitimacy and fostering a more balanced engagement with global bioethical frameworks, without compromising its normative identity.

Keywords: Bioethical Theory Reconstruction, Hardcore, Islamic bioethics, Scientific Research Programme, Protective Belt.

Abstract

Bioetika Islam kontemporer sejauh ini berkembang terutama melalui respons fikih berbasis kasus, sehingga menimbulkan kesan fragmentasi dan keterbatasan integrasi teoretis dalam diskursus bioetika global. Artikel ini menyoroti epistemologi yang mendasari kondisi tersebut dengan mengajukan rekonstruksi struktural bioetika Islam menggunakan *Methodology of Scientific Research Programs* (MSRP) Imre Lakatos. Kajian ini bertujuan menunjukkan bahwa bioetika Islam dapat dipahami bukan sekadar sebagai kumpulan fatwa, melainkan sebagai program riset normatif yang koheren dengan inti teoretis yang teridentifikasi serta mekanisme metodologis yang adaptif. Dengan menggunakan analisis normatif-filosofis dan konseptual yang berlandaskan teori hukum Islam serta filsafat ilmu, artikel ini memetakan komponen utama penalaran etika Islam ke dalam

kategori-kategori Lakatosian. Temuan penelitian menunjukkan bahwa bioetika Islam memiliki hard core yang stabil, berakar pada komitmen teologis-ontologis seperti kesucian hidup dan larangan menimbulkan bahaya, sementara perangkat *ijtihad* (termasuk *maqāṣid al-sharīʿah*, kaidah fikih, dan doktrin *dharurah*) berfungsi sebagai protective belt yang dinamis. Lebih lanjut, struktur *daruriyyāt al-khams* beroperasi sebagai heuristik dalam dua modus sekaligus: afirmatif (*wujūdān*) dan preventif (*ʿadaman*), yang membimbing inovasi etis sekaligus menjaga komitmen dasar. Rekonstruksi ini membingkai ulang bioetika Islam sebagai program normatif yang progresif dan mampu berkembang secara sistematis, sehingga memperkuat legitimasi metodologisnya serta memungkinkan keterlibatan yang lebih seimbang dalam kerangka bioetika global tanpa mengorbankan identitas normatifnya.

Kata Kunci: Bioetika Islam, Program Riset, Rekonstruksi Bioetika, Hardcore, Protective Belt.

INTRODUCTION

In recent decades, Islamic bioethics has evolved as a discipline that responds to ethical challenges posed by modern biomedical advancements, including organ transplantation, assisted reproduction, and end-of-life care. Unfortunately, some commentators contend that much of this development has been shaped predominantly through case-based juridical responses, such as legal opinions (fatwa), *fiqh* discussions, and specific problem-solving answers. While this methodology, on one hand, exemplifies the normative vitality of the Islamic tradition, on the other hand, it may give the impression that Islamic bioethics is more reactive, fragmented, and less cohesively integrated into the global bioethical discourse compared to modern bioethical frameworks.

In contemporary studies of Islamic bioethics, the prevailing research methodology continues to categorize Muslim responses to biomedical issues based on madhhab affiliation, fatwa authorities, or intellectual communities. Consequently, ethical perspectives are frequently presented merely as normative responses to specific cases, lacking adequate clarity regarding the methodological frameworks that underpin them. In truth, the classification of approaches within Islamic bioethics should not be predicated on school allegiance or individual figures, but rather on variations in *manāḥij al-taʾwīl* (hermeneutical methodologies) and patterns of integration among *naṣṣ* (revealed texts), *ʿaql* (reason), *maqāṣid* (higher objectives of the law), and *al-wāqīʿ al-ṭibbī* (medical reality). From this vantage point, Islamic bioethics can be more accurately comprehended as a coherent epistemic framework wherein divergent ethical positions mirror fundamental methodological distinctions.¹

From the foregoing discussion, it can be concluded that a key limitation of contemporary Islamic bioethics lies in its predominantly normative character and its insufficiently developed

¹ Hossein Dabbagh et al., “Approaches to Muslim Biomedical Ethics: A Classification and Critique,” *Journal of Bioethical Inquiry* 20, no. 2 (2023): 331, <https://doi.org/10.1007/s11673-023-10239-6>.

epistemic dimension. In other words, the central issue concerns how knowledge in Islamic bioethics is structured, justified, and advanced. At present, the functionalization of Islamic bioethics often relies primarily on *fiqh* as its main epistemic foundation, such that ethical analysis proceeds by mapping medical cases onto pre-existing legal categories.² This approach risks constraining the capacity of Islamic bioethics to respond to biomedical challenges that continue to evolve both conceptually and empirically.

To address this issue, this article employs Imre Lakatos's *Methodology of Scientific Research Programs* as an analytical framework. According to Lakatos, a scientific research program consists of a *hard core*, a *protective belt*, and heuristics that connect the two during progressive scientific development. Lakatos's methodology can serve as an important tool for evaluating the epistemic dynamics of knowledge, including in the context of Islamic studies, by distinguishing between the epistemic core and the adaptive strategies within a research program.³

If left underdeveloped, contemporary Islamic bioethics risks functioning as a degenerative research program due to the misplacement of *fiqh* as its epistemic *hard core*. Such a pattern ultimately inhibits the emergence of new ideas, as ethical reasoning is more often directed toward reactive adjustments to emerging problems rather than toward constructing a mature, forward-looking conceptual framework. To address this weakness, the article proposes a reconstruction of Islamic bioethics using Lakatos's research program framework. This study aims to examine how the Islamic ethical system can be evaluated and reconstructed through an established philosophical methodology.

METHODS

This study is a library-based inquiry employing a normative-philosophical and conceptual approach to reconstruct the framework of Islamic bioethics through the analytical lens of Imre Lakatos's *Methodology of Scientific Research Programs*. The data sources consist of Lakatos's principal works and contemporary scholarship on Islamic bioethics. The analytical method involves conceptual mapping of key elements (hard core, protective belt, and heuristics), followed by the

² Muhamad Wildan Arif Amrulloh and Mehdar Badrus Zaman, "Kontribusi Maqāshid Al-Syarī'ah Dalam Pengembangan Bioetika Islam: The Contribution of Maqāshid al-Syarī'ah in the Development of Islamic Bioethics," *Journal of Islamic and Occidental Studies* 2, no. 1 (2024): 22–46, <https://doi.org/10.21111/jios.v2i1.36>.

³ Muhamad Fadli, "Epistemology Methodology Of Imre Lakatos's Scientific Research Program And Contribution To Islamic Science," *Kanāḥ Philosophia: A Journal for Islamic Philosophy and Mysticism* 9, no. 2 (2023): 406–7, <https://doi.org/10.20871/kpjjpm.v9i2.296>.

development of a methodological analogy with the structure of Islamic ethical reasoning to assess its coherence, developmental capacity, and normative consistency.

To distinguish between the *hard core* and the *protective belt* within the framework of Islamic bioethics, clear and measurable criteria are required. The *hard core* is defined by principles grounded in definitive (*qat'i*) textual evidence, characterized by their non-negotiable nature, relative resistance to contextual change, and their function as fundamental normative foundations within the ethical system. In contrast, the *protective belt* consists of principles derived through juristic reasoning (*ijtihad*) or interpretive processes, which remain open to reinterpretation in response to evolving biomedical contexts and are manifested as derivative rules, policy formulations, and applied ethical judgments. The analysis is analytic-conceptual in nature, focusing on the epistemic roles of principles rather than on empirical data. Methodological validity is grounded in conceptual precision, logical consistency, and explanatory strength, with the limitation that the Lakatosian framework is employed strictly as an analytical tool.

DISCUSSION

Methodological Framework: Lakatos and Ethical Inquiry

Imre Lakatos's *Methodology of Scientific Research Programs* (MSRP) emerged from an intellectual dissatisfaction with two dominant approaches in twentieth-century philosophy of science: naïve Popperian falsificationism and the historical relativism associated with Thomas S. Kuhn. Lakatos, who operated within the orbit of critical rationalism, argued that Popperian falsificationism was historically naïve because it portrayed scientific development as a linear process in which theories are rejected in response to a single empirical anomaly. The history of science, however, shows that major theories often persist for long periods despite facing conflicting data.⁴

At the same time, Lakatos also criticized Kuhn because the notion of paradigm shifts tends toward irrationalism and epistemic relativism, as if changes in scientific paradigms were determined more by sociological factors than by rational argument.⁵ Out of this tension, Lakatos formulated MSRP as a methodological framework that remains rational while being sensitive to the historical realities of scientific development.⁶

⁴ Imre Lakatos, "Falsification and the Methodology of Scientific Research Programs," in *Criticism and the Growth of Knowledge* (Cambridge University Press, 1970), 171–73.

⁵ Robert Ellis, *Lakatos and Non-Dualist Ethics*, Essay (Royal Institute of Philosophy (Fu Essay Contest), 2019), 6–7.

⁶ Fadli, "Epistemology Methodology Of Imre Lakatos's Scientific Research Program And Contribution To Islamic Science," 405–7.

Historically, Lakatos began formulating the idea of MSRP in the late 1960s, and it reached a mature articulation in his essay “Falsification and the Methodology of Scientific Research Programs” (1970), which was later systematically compiled in the book *The Methodology of Scientific Research Programs* (1978).⁷ Within this framework, Lakatos shifted the unit of analysis for scientific rationality from a single theory to a research program—namely, a series of theories that develop over time in a structured manner.

Each research program contains a *hard core* (a set of fundamental assumptions protected from direct falsification) and a *protective belt* consisting of auxiliary hypotheses that may be modified in response to empirical anomalies.⁸ The dynamics of a research program are guided by a *negative heuristic* (a prohibition against challenging the hard core) and a *positive heuristic* (guidelines for developing further theories). Scientific rationality, according to Lakatos, is not measured by the final truth of a theory, but by whether a research program is progressive (capable of generating novel predictions or explanations) or degenerative (relying merely on ad hoc adjustments).⁹

Accordingly, a research program consists of three principal elements: a *hard core*, a *protective belt*, and a set of heuristics. These components together form a rational structure that enables a system of knowledge to endure while continuing to develop. The *hard core* comprises a set of fundamental assumptions that are methodologically shielded from direct challenge.¹⁰ It represents the defining foundational commitments of a research program and must therefore be protected from attempts at falsification. In practice, the *hard core* often does not contain direct empirical predictions because of its highly fundamental status; rather, it provides the theoretical foundation on which more specific theories within the program are constructed.

The second element is the *protective belt*, which consists of auxiliary hypotheses that function as part of the positive heuristic. These hypotheses operate under specific initial conditions and are subject to certain methodological rules, thereby allowing adjustments to the program without altering the fundamental core.¹¹

⁷ Imre Lakatos, *The Methodology of Scientific Research Programs*, vol. 1, ed. John Warall and Gregory Currie (Cambridge University Press, 1978), 3.

⁸ Lakatos, *The Methodology of Scientific Research Programs*, 1:47–52.

⁹ Lakatos, *The Methodology of Scientific Research Programs*, 1:118–21.

¹⁰ Lakatos, *The Methodology of Scientific Research Programs*, 1:48–49.

¹¹ Lakatos, *The Methodology of Scientific Research Programs*, 1:49–50.

The third element in Lakatos's framework is the *heuristic*, a set of guidelines that directs how a research program develops. A heuristic consists of methodological rules that explain how new theories are constructed around the *hard core* without directly altering it.¹² Lakatos distinguishes between two types of heuristics. The *negative heuristic* prohibits direct modification of the *hard core*, thereby safeguarding the program's foundational commitments. In contrast, the *positive heuristic* provides guidance on how theories may be developed, including which problems should be explored, which auxiliary assumptions may be introduced, and how the explanatory scope of the research program can be expanded.¹³

Although originally formulated within the mathematics and philosophy of science, Lakatos's framework possesses significant epistemological potential for extension to ethical inquiry, particularly in understanding how ethical systems are constructed, sustained, and rationally developed.

This methodological framework carries important implications for the field of ethics, which has often been framed as a choice between two extremes: normative absolutism and moral relativism. By employing MSRP, ethical theories can be understood as normative research programs that develop historically. Fundamental moral principles—such as human dignity, the pursuit of well-being, or the cultivation of character and virtue—may be situated as a relatively stable *hard core*, while applied normative formulations, theories of justice, or applied bioethics function as a *protective belt* that remains open to rational revision.

This approach enables rational evaluation among ethical theories not based on ahistorical truth claims but on each ethical program's capacity to respond to new moral problems in a coherent and non-ad hoc manner.¹⁴

Furthermore, applying the *Methodology of Scientific Research Programs* (MSRP) to ethical research offers a productive model for evaluating the rational dynamics of normative theories. Within this framework, an ethical theory may be considered progressive if it can provide consistent and well-directed normative solutions to contemporary ethical problems (such as those in bioethics, global justice, or environmental crises) without sacrificing the core principles that

¹² Alan Musgrave and Charles Pigden, "Imre Lakatos," in *The Stanford Encyclopedia of Philosophy*, Spring 2022 Edition (Stanford University (The Metaphysics Research Lab), April 4, 2016), <https://plato.stanford.edu/entries/lakatos>.

¹³ Lakatos, *The Methodology of Scientific Research Programs*, 1:50–51.

¹⁴ This is as demonstrated in attempts to apply Lakatos's methodology to non-dualist ethical reflection. See: Ellis, *Lakatos and Non-Dualist Ethics*.

constitute its normative identity. This criterion of progressiveness is not understood as “final truth,” but rather as the capacity of an ethical program to expand its explanatory power and normative relevance in a non-ad hoc manner, consistent with Lakatos’s progressive–degenerative criteria for evaluating scientific research programs.¹⁵

Conversely, an ethical theory that continually adjusts itself merely in response to external pressures (without a clear heuristic direction and without coherent conceptual integration) may be understood as a degenerative normative research program. Such an evaluative model has been used reflectively in various contemporary studies to assess the quality and rationality of normative developments beyond the empirical sciences, demonstrating that Lakatosian criteria can function as a cross-disciplinary analytical tool,¹⁶ including within the domain of ethics. In this way, Lakatos’s methodology helps preserve the rationality of ethics as a normative scholarly discipline, preventing it from falling into ahistorical dogmatism while avoiding dissolution into value relativism. MSRP thus serves as an evaluative framework that enables ethics to be understood as a rational intellectual practice that develops historically, argues methodologically, and remains epistemically accountable.¹⁷

In ethical inquiry, the *hard core* may be understood as the set of fundamental moral principles that form the foundation of an ethical system. For example, in Kantian ethics, the *hard core* consists of the principle that human beings must be treated as ends in themselves, not merely as means. This principle underlies the entire construction of moral obligation within the Kantian framework. Accordingly, ethics does not proceed from a conceptual vacuum, but from prior normative commitments that function methodologically. This indicates that even ethical systems claiming universality continue to operate within a particular epistemological perspective, rather than from a position of absolute neutrality.

Meanwhile, the *protective belt* is manifested through derivative legal formulations, applied principles, contextual exceptions, and normative interpretations of new cases. For instance, the principle of “justice” as a *hard core* is not directly undermined when complex bioethical dilemmas arise. On the contrary, this principle serves as a foundation for revising and developing ethical

¹⁵ Lakatos, *The Methodology of Scientific Research Programs*, vol. 1.

¹⁶ Daniel J. Dunleavy, “Progressive and Degenerative Journals: On the Growth and Appraisal of Knowledge in Scholarly Publishing,” *European Journal for Philosophy of Science* 12, no. 4 (2022): 61, <https://doi.org/10.1007/s13194-022-00492-8>.

¹⁷ Miroslav Karaba, “Religious Knowledge in the Light of Kuhn’s and Lakatos’ Methodological Conceptions,” *Pensamiento. Revista de Investigación e Información Filosófica* (Madrid) 78, no. 298 S. Esp (2022): 669–87, <https://doi.org/10.14422/pen.v78.i298.y2022.022>.

policies, ensuring that their application remains aligned with core values. Thus, the dynamics of ethical development occur through applied reconstruction rather than through the abandonment of fundamental principles.¹⁸

Lakatos's distinction between *negative heuristic* and *positive heuristic* provides a significant methodological framework for explaining how normative stability and dynamism can be maintained rationally. The *negative heuristic* functions to safeguard the fundamental principles of an ethical system, preventing them from being easily compromised by pragmatic pressures or reactive contextual demands. In contrast, the *positive heuristic* guides the development of new normative formulations, enabling responses to contemporary moral problems (such as those in bioethics, global justice, or ecological crises) without compromising internal coherence.¹⁹

Within the framework of the *Methodology of Scientific Research Programs* (MSRP), ethical development is not understood as the opportunistic replacement of values each time a crisis arises, but rather as a rational process that expands the normative apparatus while remaining grounded in the fundamental principles that define the system's identity. This approach allows an ethical system to be understood as a normative research program that can be evaluated rationally: an ethical theory is considered progressive if it is capable of generating consistent, productive, and non-ad hoc normative responses to new moral problems, and degenerative if it merely engages in defensive adjustments without expanding its normative explanatory power.²⁰ Accordingly, the evaluation of an ethical system does not fall into value relativism or ahistorical dogmatism. Still, it rests on criteria of internal rationality, methodological coherence, and normative productivity—an evaluative approach aligned with contemporary discourses on cross-disciplinary normative rationality.²¹

Islamic Bioethics

Bioethics is a compound term derived from the Greek words *bios*, meaning “life,” and *ethikē*, meaning “ethics,”²² and is defined by Samuel Gorovitz as “the critical examination of the moral

¹⁸ The Biopharmaceutical Bioethics Working Group et al., “Considerations for Applying Bioethics Norms to a Biopharmaceutical Industry Setting,” *BMC Medical Ethics* 22, no. 1 (2021): 3–4, <https://doi.org/10.1186/s12910-021-00600-y>.

¹⁹ Jack Ritchie, “Heuristic, Physics Avoidance and the Growth of Knowledge,” in *Proofs and Research Programs: Lakatos at 100*, vol. 498, ed. Roman Frigg et al., Synthese Library (Springer Nature Switzerland, 2025), https://doi.org/10.1007/978-3-031-88213-5_10.

²⁰ Lakatos, *The Methodology of Scientific Research Programs*, 1:51–53.

²¹ Hilary Putnam, *Ethics without Ontology* (Harvard University Press, 2004), 22–23.

²² W. T. Reich, “Introduction,” in *Encyclopedia of Philosophy*, vol. 1 (The Free Press, 1978).

dimensions of decision-making in contexts related to health and the biological sciences.”²³ It encompasses a broad spectrum of social issues, including public health, occupational health, and international health, as well as the ethics of population control, while also extending beyond human life and health to address concerns involving animals and plants, such as animal experimentation and competing environmental claims.²⁴ As a branch of applied normative ethics, bioethics differs from many other areas of philosophy in that it adopts an inherently interdisciplinary approach, meaning that various other disciplines contribute to and stimulate its discussions; accordingly, fields such as law, sociology, anthropology, and political studies intersect significantly with bioethical inquiry.²⁵

The history of ethics (including medical ethics) is, in fact, very ancient and can be traced back to the ethical values taught by the Abrahamic religions, namely Judaism, Christianity, and Islam, despite differences in details, foundations, and terminology. Moreover, general ethical principles can be found in various ancient civilizations, such as Ancient Egypt (the Pharaonic tradition), the Code of Hammurabi, ancient Greek philosophy, and Buddhist and Hindu civilizations. Comparable examples are also evident in the Code of Hammurabi, the Hippocratic Oath, and even in the Islamic medical oath.²⁶

As a multidisciplinary field, bioethics is not merely a philosophical enterprise. Scholars from various disciplines have contributed to the formulation of bioethical principles. Nevertheless, it cannot be denied that in secular bioethics, religious convictions tend to be set aside. In fact, during its early emergence in the 1960s and 1970s, bioethics was largely dominated by theological inquiry.²⁷ This was due in part to the prominent role of Christian theologians and Jewish scholars—such as Daniel Callahan, Richard McCormick, Paul Ramsey, Joseph Fletcher, Leon Kass, Seymour Siegel, and David Feldman—who were actively engaged in the field, and in part to the dominance of theological language and methods.²⁸ However, as Western societies, particularly the United States, increasingly embraced moral pluralism, individualism, and suspicion toward religious authority, the idea of a shared moral foundation became less widely

²³ Samuel Gorovitz, “Bioethics and Social Responsibility,” *The Monist* 60, no. 1 (1977): 3–15.

²⁴ Reich, “Introduction,” xix.

²⁵ Thomas A. Mappes and David DeGrazia, “General Introduction,” in *Biomedical Ethics*, 5th ed. (McGraw-Hill, 2001).

²⁶ Ibnu Abi Usaybi’ah, *‘Uyūn al-Anbā’ Fi Thabaqāt al-Athibbā’* (Maktabat Al-Hayat, 1965), 45.

²⁷ Daniel Callahan, “Religion and the Secularization of Bioethics,” *The Hastings Center Report* 20, no. 4 (1990): 2–4, <https://doi.org/10.2307/3562776>.

²⁸ H. T. Engelhart, “Creating a Discipline: Theory,” paper presented at Proceedings of The Birth of Bioethics Conference, *Proceedings of The Birth of Bioethics Conference*, September 1992.

accepted. It was in this context that what came to be known as principlism emerged. Principlism is an approach in bioethics that formulates moral judgment through a set of general principles that serve as a framework for ethical decision-making. This model gained prominence in the late 1970s and was popularized, especially by Tom L. Beauchamp and James F. Childress, through their work, *Principles of Biomedical Ethics*.²⁹

As an operational framework, this approach was subsequently formulated into four general moral principles that remain widely recognized in bioethical discussions: autonomy, beneficence, non-maleficence, and justice. These four principles serve as normative points of convergence, enabling ethical dialogue to continue amid diverse moral perspectives that no longer share the same metaphysical foundations.

The operation of principlism reduces the diversity of moral values, cultural perspectives, and the complexity of clinical cases to a set of general principles that serve as common metrics for ethical decision-making. These principles are fundamentally procedural and minimalist in nature. They do not proceed from a substantive conception of the human person, the purpose of life, or the highest good (*summum bonum*), but rather from pragmatic consensus within a pluralistic public sphere. This framework provides a neutral, procedural moral language, allowing actors from different moral backgrounds to engage in dialogue and reach practical decisions.³⁰ While this approach facilitates coordination in pluralistic societies, it simultaneously sacrifices deeper moral dimensions, such as a vision of the good human life, the purpose of medicine, and the metaphysical grounding of values.

As a consequence, medical ethics risks being reduced to the efficient management of conflicting interests rather than the pursuit of substantive moral wisdom. Principles such as autonomy are often treated as overriding values that supersede other moral considerations, even when autonomous decisions may diminish the meaning of life, social relationships, or transcendent responsibilities. Within this framework, bioethics functions more as a mechanism

²⁹ "Principlism," *Encyclopedia of Bioethics* (Encyclopedia.com), accessed January 29, 2026, <https://www.encyclopedia.com/science/encyclopedias-almanacs-transcripts-and-maps/principlism>.

³⁰ John H. Evans, "A Sociological Account of the Growth of Principlism," *The Hastings Center Report* 30, no. 5 (2000): 31–38, <https://doi.org/10.2307/3527886>.

for managing value conflicts than as a normative guide directing human beings toward an integrated vision of the good.³¹

Principlism has played an active role in accelerating and consolidating the secularization of bioethics. By setting aside debates concerning the sources of values and restricting itself to a minimal normative framework acceptable across belief systems, ethical discourse has shifted from a teleological–metaphysical domain (concerned with the purpose of life, the meaning of suffering, and the nature of human dignity) to a procedural–juridical domain focused on rights, choice, distribution, and consent. This development is affirmed by Daniel Callahan, who observes that “the most striking change over the past two decades has been the secularization of bioethics.” He further notes that “the field has moved from a domain dominated by religious and medical traditions to one increasingly shaped by philosophical and legal concepts”.³²

The consequence has been the emergence of a mode of public discourse that emphasizes secular themes: universal rights, individual rights, personal autonomy, procedural justice, and a systematic rejection of notions of the common good or of an individual good grounded in transcendence.

From an Islamic perspective, such an approach is inadequate because morality is not grounded merely in calculations of benefit but in obedience to divine ordinances that fully comprehend the true nature of human welfare. The Qur’an illustrates this in its discussion of intoxicants and gambling: although they contain some benefit, their sin and harm are greater than their benefit (Qur’an 2:219). This verse underscores that moral evaluation does not end with apparent utility, but must take into account broader dimensions of harm, both spiritual and social.³³

For this reason, reaffirming Islamic bioethics has become increasingly necessary. Islamic bioethics arises from a combination of principles, obligations, and rights within Islam that guide ethical decision-making in medical and biomedical contexts.³⁴ Sachedina views Islamic bioethics as part of the integrated legal-ethical tradition of Islam (*Shari’ah*), in which Qur’anic revelation

³¹ Ali Al-Qaradaghi, “Response by Ali Al-Qaradaghi to Tom Beauchamp’s Paper,” in *Islamic Perspectives on the Principles of Biomedical Ethics: Muslim Religious Scholars and Biomedical Scientists in Face-to-Face Dialogue with Western Bioethicists*, ed. Mohammed Ghaly, Intercultural Dialogue in Bioethics, vol. 1 (World Scientific Publishing, 2016), 144.

³² Callahan, “Religion and the Secularization of Bioethics,” 2–4.

³³ Al-Qaradaghi, “Response by Ali Al-Qaradaghi to Tom Beauchamp’s Paper,” 144–45.

³⁴ A. Binsumeit Al Khitamy, “Islamic Bioethics,” .org, *IslamiCity*, Desember 2005.

serves as the moral foundation of religious obligation, and Islamic normative texts function as ethical standards.³⁵

The roots of bioethics in Islam can be traced to the early period, particularly through the work of Ishāq ibn ‘Alī al-Ruhāwī (9th century), titled *Adab al-Ṭibb*, which is often regarded as one of the earliest treatises on medical ethics in Islamic civilization.³⁶ This work addresses the moral responsibilities of physicians, doctor–patient relationships, and the spiritual dimensions of medical practice. This tradition later intersected with major medical works such as Ibn Sīnā’s *al-Qānūn fī al-Ṭibb*, as well as with discussions of medical law in early fiqh literature that addressed issues of surgery, professional liability, and the protection of life. Nevertheless, these contributions remained within the framework of *fiqh al-ṭibb* and professional adab. They had not yet developed into “bioethics” in the modern sense as a systematic and interdisciplinary discipline.

Contemporary Islamic bioethics began to take clearer shape toward the end of the twentieth century when modern biomedical technologies gave rise to new problems such as organ transplantation, in vitro fertilization, genetic engineering, and the determination of brain death. One important milestone was the international symposium on Islamic medical ethics, organized by the Islamic Organization for Medical Sciences (IOMS) in Kuwait in the mid-1980s, which brought together *fuqaha* and physicians to discuss issues concerning early human life and modern medical interventions. Institutionally, the establishment of the International Islamic Fiqh Academy (IIFA) in 1981 under the auspices of the Organization of Islamic Cooperation (OIC) provided an official transnational forum for formulating *fiqh* resolutions on contemporary biomedical issues. Its academic development was later strengthened by the works of modern scholars such as Abdulaziz Sachedina, with his *Islamic Biomedical Ethics: Principles and Application*, and Dariusch Atighetchi, with *Islamic Bioethics: Problems and Perspectives*, which helped map the methodology and normative framework of Islamic bioethics as a distinct field of study in dialogue with global bioethics.³⁷

³⁵ Norman K. Swazo, “Islamic Biomedical Ethics: Principles and Application By Abdulaziz Sachedina,” *American Journal of Islam and Society* (New York) 26, no. 4 (2009): 111–13, <https://doi.org/10.35632/ajis.v26i4.1367>.

³⁶ Ayman Shabana, “Bioethics in Islamic Thought,” *Religion Compass* 8, no. 11 (2014): 337–46, <https://doi.org/10.1111/rec3.12137>.

³⁷ Şeyma Ülger, “Abdulaziz Sachedina, *Islamic Biomedical Ethics: Principles and Application*,” *Marife Dini Araştırmalar Dergisi* 22, no. 1 (2022): 517–23, <https://doi.org/10.33420/marife.1091319>.

In Islam, ethics and religion are never separated; rather, they function in harmony. The Qur'an affirms this when God addresses the Prophet Muhammad: "*Indeed, you are surely upon an exalted standard of character*" (Qur'an 68:4). Classical exegetes explain that the phrase *khuluq 'azim* here does not merely denote praiseworthy personal traits in a narrow sense, but represents the comprehensive embodiment of Islamic teachings and Qur'anic values. Al-Ṭabarī interprets this verse as God's declaration that the Prophet stands upon a magnificent moral character that encompasses Islam and its entire legal and ethical framework. Thus, the Prophet's character is understood as the full internalization of revelation, making his conduct a living exegesis of the Qur'an.³⁸

From this, it becomes clear that in Islam, ethics and religion are not distinct domains. Morality is not merely the product of social consensus or the outcome of relativistic rational deliberation, but an integral part of the structure of faith and *Shari'ah*. Consequently, in Islamic bioethics, there is no dichotomy between moral reasoning and religious commitment. Ethical norms in biomedical contexts are understood as a direct extension of the normative framework and therefore do not undergo the process of secularization that has characterized the development of modern medical ethics in the West.

In the development of Islamic bioethics, two dominant approaches can be identified: the instrumentalist approach and the indigenous approach.³⁹ The instrumentalist approach employs Western bioethical principles as its primary instrument and seeks to demonstrate their compatibility with Islamic teachings by appealing to religious texts.⁴⁰ In other words, it adopts the principlism of Beauchamp and Childress and subsequently seeks its justification and equivalents in the Qur'an, Hadith, and the Islamic intellectual tradition (*turāth*).

The main strength of this approach lies in its reliance on a principle-based bioethical theory (principlism) that is well-structured, coherent, and widely recognized internationally, despite having emerged from a Western (particularly American) context. This facilitates its integration into global bioethical discourse.

³⁸ Ibnu Jarir al-Thabari, *Jami' al-Bayan 'an Ta'wil Ay al-Qur'an*, 1st ed. (Dar Hijr, 2001), 23:150.

³⁹ Mohammed Ghaly, ed., *Islamic Perspectives on the Principles of Biomedical Ethics: Muslim Religious Scholars and Biomedical Scientists in Face-to-Face Dialogue with Western Bioethicists*, Intercultural Dialogue in Bioethics, vol. 1 (World Scientific Publishing, 2016), 33.

⁴⁰ See, for example, the following study: Kiarash Aramesh, *Justice as a Principle of Islamic Bioethics*, 8, no. 10 (2008); A. van Bommel, "Medical Ethics from the Muslim Perspective," *Acta Neurochirurgica Supplement* (New York) 74 (1999); Shabih Zaidi, *Ethics in Medicine* (Springer Netherlands, 2014).

The primary weakness of the instrumentalist approach lies in the lack of theoretical depth found in many works that adopt it, where arguments tend to be superficial, analyses hasty, and the understanding of principlism itself not always comprehensive, resulting in conceptual foundations that are often insufficiently robust to support the ethical claims advanced.⁴¹ Moreover, attempts to demonstrate compatibility between Western bioethical principles and the Islamic tradition are frequently methodologically weak, relying on surface-level citation of religious texts without adequate *uṣūlī* analysis or a well-developed Islamic epistemological framework, while also failing to clarify how these principles are genuinely operationalized within the Islamic ethical-religious system, thereby remaining largely declarative rather than truly applicative.⁴²

In contrast, the indigenous approach in Islamic bioethics seeks to formulate ethical principles independently, drawing on the intellectual and religio-ethical heritage of Islam, grounded in the conviction that Islamic sources are sufficiently rich to construct an authentic bioethical framework. Its primary focus is not on aligning with Western theories, but on affirming the identity and normative agency of the Islamic tradition itself. The principal strength of this approach lies in the depth and richness of the Islamic ethical-religious discourse it employs, allowing bioethical analysis to be rooted in the structures of Islamic epistemology, theology, and law rather than relying on superficial textual correspondences. This approach also resonates more strongly with Muslim communities, as it is developed from within their own tradition, does not require external validation of its Islamic legitimacy, and is better positioned to preserve the continuity of Islamic normative identity when addressing contemporary bioethical issues.⁴³

The principal weakness of the indigenous approach lies in its limited engagement with established earlier bioethical theories, such as principlism within the Western tradition, resulting in a perspective that often fails to mature into a theoretically comparable and methodologically robust framework. Consequently, its contributions frequently remain at the level of formulating lists of principles or legal-ethical maxims, without developing a systematic analytical apparatus for applying those principles consistently to concrete bioethical cases across diverse contexts.⁴⁴

⁴¹ Ghaly, *Islamic Perspectives on the Principles of Biomedical Ethics*, 35.

⁴² Ghaly, *Islamic Perspectives on the Principles of Biomedical Ethics*, 35.

⁴³ Ghaly, *Islamic Perspectives on the Principles of Biomedical Ethics*, 36.

⁴⁴ Ghaly, *Islamic Perspectives on the Principles of Biomedical Ethics*, 36.

In the case of organ transplantation, many early scholars rejected the practice based on the principle of *ḥurmat al-jasad* (the sanctity of the human body),⁴⁵ reinforced by the Prophetic hadith: “Breaking the bone of a dead person is like breaking it while he is alive.” This principle of bodily sanctity may be positioned as part of the *hardcore*. However, the juridical ruling that prohibited transplantation should not itself be treated as *hardcore*, but rather as a contextual product of *ijtihād*. The success of organ transplantation in the twentieth century introduced a new perspective that, in fact, reinforces the principles of preserving human dignity (*ḥifẓ al-ʿird*) and preserving life (*ḥifẓ al-nafs*).

Subsequently, fatwa-issuing bodies such as Majma‘ al-Fiqh al-Islami (1986, 1997) and Dar al-Ifta al-Misriyyah (2001, 2015) permitted organ transplantation under strict conditions.⁴⁶ These conditions may be classified into ethical, medical, and legal dimensions: *first*, informed and voluntary consent from the donor (or the donor’s family in the case of deceased donation); *second*, the prohibition of organ commercialization, ensuring that transplantation remains an act of donation rather than transaction; *third*, the requirement of clear medical necessity, positioning transplantation as a last-resort option; *fourth*, the assurance that risks to living donors are minimal and proportionate; and *fifth*, the performance of the procedure by qualified medical professionals in appropriate facilities.⁴⁷

This conditional permissibility illustrates the adaptive capacity of Islamic bioethics, showing how scholars preserve its hard core while simultaneously developing a well-defined and measurable protective belt, allowing the tradition to remain both principled and responsive to contemporary medical developments. Therefore, the future development of Islamic bioethics requires a synthesis of the depth of the indigenous approach and the methodological rigor of contemporary bioethics, to avoid being trapped either in imitation or in intellectual isolation.

Reconstructing Islamic Bioethics as a Research Programme

Although Lakatos originally developed the scientific research program (SRP) for the empirical sciences, its core structural components can be analogously adapted to the normative domain of

⁴⁵ Abul Fadl Mohsin Ebrahim, “Organ Transplantation: Contemporary Sunni Muslim Legal And Ethical Perspectives,” *Bioethics* 9, no. 3 (1995): 291–302, <https://doi.org/10.1111/j.1467-8519.1995.tb00364.x>.

⁴⁶ Faroque Amin, “Applicability of Islamic Methodology Concerning Novel Issues to the Organ Transplantation in Religious Scholars’ Contemporary Discourse,” *Religions* 12, no. 9 (2021): 670, <https://doi.org/10.3390/rel12090670>.

⁴⁷ Aasim I. Padela and Jasser Auda, “The Moral Status of Organ Donation and Transplantation Within Islamic Law: The Fiqh Council of North America’s Position,” *Transplantation Direct* 6, no. 3 (2020): e536, <https://doi.org/10.1097/TXD.0000000000000980>.

bioethics. However, such adaptation requires significant conceptual modification to accommodate the distinct epistemological character of bioethics, which differs fundamentally from that of the natural sciences.

The principal challenge in applying a Lakatosian framework to bioethics concerns the notion of falsification. In disciplines such as physics or mathematics, theories are tested through empirical observation, where persistent anomalies may lead to their rejection. Bioethics, by contrast, operates within the sphere of values, principles, and moral reasoning, where there is no direct empirical counterpart to predictive failure. A bioethical framework is therefore not “falsified” by the mere emergence of new medical technologies; rather, it is called into question when it fails to respond coherently to the novel moral dilemmas those technologies generate. Extending the research program model to bioethics thus requires a reinterpretation of what counts as a “progressive” or “degenerative” problem shift within a normative, rather than empirical, field of inquiry.⁴⁸

In this context, a progressive problem shift in bioethics occurs when a core ethical commitment (the hard core) yields new, coherent understandings that remain empirically relevant to emerging issues without generating internal contradictions.⁴⁹ By contrast, a degenerative shift occurs when a bioethical framework becomes increasingly ad hoc, relying on an ever-growing set of fragmented auxiliary rules and failing to yield integrative new insights.⁵⁰ Reconstructing bioethics through a Lakatosian framework enables a more historically and philosophically sensitive analysis of its development. Rather than viewing bioethics as a neutral and static collection of principles, this approach treats it as a set of competing normative research programs, each structured around a hard core that reflects its most fundamental philosophical commitments.⁵¹

Within a Lakatosian framework, the position of each ethical model can be articulated more clearly: where its foundational assumptions lie, how auxiliary constructs protect those assumptions, and why two approaches may diverge sharply even when addressing the same case.⁵²

⁴⁸ L. Niebroj, “Bioethics of Life Programs: Taking Seriously Moral Pluralism in Clinical Settings,” *European Journal of Medical Research* 15, no. S2 (2010): 98, <https://doi.org/10.1186/2047-783X-15-S2-98>.

⁴⁹ T. Wangmo et al., “The Vagueness of Integrating the Empirical and the Normative: Researchers’ Views on Doing Empirical Bioethics,” *Journal of Bioethical Inquiry* 21, no. 2 (2024): 295–308, <https://doi.org/10.1007/s11673-023-10286-z>.

⁵⁰ Wangmo et al., “The Vagueness of Integrating the Empirical and the Normative.”

⁵¹ Niebroj, “Bioethics of Life Programs.”

⁵² Niebroj, “Bioethics of Life Programs.”

Bioethics thus appears not merely as a field of practical moral judgment, but also as a site of encounter (and at times contestation) between differing worldviews concerning the human person, the meaning of life, and the very aims of medicine.

For example, a school of bioethics whose hard core rests on a secular-modern view of the human being as an autonomous individual (understood as a biological-rational entity whose identity and value are constructed through self-consciousness and the capacity for choice) will naturally generate an ethical framework that strongly emphasizes personal autonomy, the legitimacy of genetic engineering for the sake of improving quality of life, broad acceptance of human enhancement, and flexibility in end-of-life issues so long as decisions are grounded in the individual's informed and voluntary choice. By contrast, a bioethical program rooted in the hard core commitment that the human being is a creature of God, possessing both bodily and spiritual dimensions, and that life itself is a divine trust, will emphasize the sanctity of life, strict limits on interventions that alter the structure of creation, caution toward enhancement practices that exceed genuine therapeutic need, and rejection of actions that intentionally terminate life, even when such actions are justified by personal autonomy.

This framework provides a structured way to assess the theoretical resilience, coherence, and innovative capacity of an ethical approach. It shifts the evaluation of bioethics from mere intuitive appeal or short-term political considerations toward an appraisal of its long-term explanatory power and normative prescriptive power. By asking whether a given bioethical approach generates progressive problem-shifts, responsible innovation in biomedicine can be more sharply understood in terms of its strengths, limitations, and future potential. Within this reconstructive perspective, bioethics is no longer positioned as a passive commentator on scientific developments, but as an active and evolving normative research program engaged in continuous dialogue with empirical findings and social values.⁵³

This evaluative framework makes it possible not only to assess bioethics in general but also to reconstruct particular bioethical traditions as normative research programs with an internal structure that can be analyzed methodologically. On this basis, Islamic bioethics can be more systematically reconstructed as a research program possessing a hard core, a protective belt, and a series of theories. Such a reconstruction is intended not merely to strengthen the epistemic legitimacy of Islamic bioethics within global discourse, but also to clarify how normative stability

⁵³ Niebroj, "Bioethics of Life Programs."

and the dynamism of *ijtihad* can operate in a methodologically grounded manner rather than in a reactive or ad hoc fashion.

Islamic bioethics is fundamentally rooted in a theological ontology in which divine sovereignty (*taḥḥūd*) and human moral accountability before God (*taklīf*) serve as the highest reference points for all ethical deliberation. From this theological foundation emerges the hard core of Islamic bioethics: the principle of the sanctity of human life (*ḥurmat al-naḥs*) and the prohibition against causing harm (*lā ḍarar wa lā ḍirār*). The Qur'an explicitly states, "Whoever kills a soul unless for a soul or for corruption [done] in the land—it is as if he had slain all humankind. And whoever saves one—it is as if he had saved all humankind." This verse underscores the inviolability of innocent human life as a fundamental moral value, such that any act that intentionally ends life without a legitimate *shar'ī* justification constitutes a grave violation.⁵⁴

With the sanctity of life (*ḥurmat al-naḥs*) and the prohibition of harm as its hard core, the protective belt of Islamic bioethics consists of a set of methodological tools that distinguish between harms that must be categorically prevented and harms that may be tolerated in a limited manner to avert a greater injury, without ever relinquishing the principle that life is sacred and that medical intervention must not become a source of illegitimate harm. Within this configuration, various instruments of *ijtihad* (such as *maqāṣid al-sharī'ah*, *qawā'id fiqhīyyah*, *maṣlaḥah*-based reasoning, the concept of *ḍarūrah* (necessity), fatwa, and mechanisms of *tarjih*⁵⁵) function as elements of the protective belt.⁵⁶ These tools do not replace or revise the principles of the sanctity of life and the prohibition of harm; rather, they explicate how these principles are operationalized in complex circumstances, such as determining the limits of high-risk medical interventions, end-of-life decisions, organ transplantation, or assisted reproductive technologies.⁵⁷

Meanwhile, the heuristic dimension of a research program can, at an analytical level, be correlated with the structure of the *ḍarūriyyāt al-khams* within the theory of *maqāṣid al-sharī'ah*.

⁵⁴ Ezieddin Elmahjub, "Normative Account of Islamic Bioethics in End-of-Life Care," *Global Bioethics* 33, no. 1 (2022): 133–54, <https://doi.org/10.1080/11287462.2022.2118977>.

⁵⁵ Normative prioritization in cases of conflict.

⁵⁶ Lihat dalam penelitian-penelitian berikut: Thalia Arawi, "Islam, the Pursuit of Knowledge, and the Ethics of Research," in *Handbook of Healthcare in the Arab World*, ed. Ismail Laher (Springer International Publishing, 2021), https://doi.org/10.1007/978-3-030-36811-1_180; Z. Azmar et al., "A Narrative Review of Islamic Bioethics and Regenerative Medicine: The Case of Amniotic Fluid Mesenchymal Stem Cells," *Cytotherapy* 27, no. 5 (2025): S130, <https://doi.org/10.1016/j.jcyt.2025.03.256>; Qosay A. E. Al-Balas et al., "The Ethics of Gene Editing from an Islamic Perspective: A Focus on the Recent Gene Editing of the Chinese Twins," *Science and Engineering Ethics* 26, no. 3 (2020): 1851–60, <https://doi.org/10.1007/s11948-020-00205-5>.

⁵⁷ Abdul Halim Ibrahim et al., "Maqasid Al-Shariah Based Islamic Bioethics: A Comprehensive Approach," *Journal of Bioethical Inquiry* 16, no. 3 (2019): 333–45, <https://doi.org/10.1007/s11673-019-09902-8>.

These five essential objectives—*ḥifẓ al-dīn* (protection of religion), *al-naḥs* (life), *al-‘aql* (intellect), *al-nasl* (lineage), and *al-māl* (property)—do not merely constitute a list of protected values; rather, they function as a teleological matrix that both guides and constrains legal and ethical elaboration in response to new realities.⁵⁸ The preservation of the *ḍarūriyyāt* in their positive, existential dimension (*wujūdān*)⁵⁹ may be understood as a positive heuristic, namely an affirmative effort to realize, strengthen, and develop the conditions that sustain these five essential elements. In bioethical discourse, this is reflected in orientations of *ijtihād* that encourage medical innovation, public health policy, and clinical decision-making, thereby reinforcing the protection of life, the proper functioning of the intellect, the continuity of lineage, the stability of ownership, and the integrity of religious commitment. In this way, responses to emerging biomedical problems remain situated within the framework for realizing fundamental human welfare as defined by the objectives of the *Shari‘ah*. The *ḍarūriyyāt al-khams*, in this respect, serve as an exploratory guide for addressing novel bioethical issues, including genetic engineering, xenotransplantation, and biosafety.⁶⁰

Conversely, the preservation of the *ḍarūriyyāt* in their negative dimension (*‘adaman*) may be understood as a negative heuristic, namely, a protective–preventive function that seeks to avert harm (*mafsadah*) threatening the five necessities. It operates as an epistemic–normative limiting device that rejects lines of legal and ethical development that could erode the existential foundations of human life. In bioethical contexts, even when a medical intervention promises technical benefit or pragmatic efficiency, it remains unacceptable if it substantially endangers the continuity of life, undermines rational capacity, obscures the structure of lineage, generates destructive disruption in systems of ownership, or weakens the moral–religious foundations of society.⁶¹ In Lakatosian terms, both the positive (*wujūdān*) and negative (*‘adaman*) dimensions together form a heuristic framework that ensures the protective belt's dynamics remain adaptive to empirical anomalies without ever revising or relativizing the fundamental commitments safeguarded by the hard core.

In this context, the research program framework can serve as a relevant conceptual tool for assessing Islamic bioethics not merely as a collection of normative opinions, but as an intellectual

⁵⁸ Muhamad Wildan Arif Amrulloh and Zaman, “Kontribusi Maqāshid Al-Syari‘ah Dalam Pengembangan Bioetika Islam.”

⁵⁹ Abu Ishaq al-Syathibi, *Al-Muwafaqat*, 1st ed. (Dar Ibnu Affan, 1997), 2:18.

⁶⁰ Noor Dzuhaidah Osman and Azhin Omer, “Biosafety From The Maqasid Shariah Views,” *International Journal of Maqasid Studies & Islamic Advanced Research* 4, no. 2 (2023): 18–30.

⁶¹ al-Syathibi, *Al-Muwafaqat*, 2:18–19.

system with a theoretical core, protective mechanisms, and an internal pattern of development. This approach allows Islamic bioethics to be evaluated in a more balanced and analytical manner, not through external criteria foreign to its foundations, but through its own normative consistency and productivity.

The reconstruction of Islamic bioethics as a Lakatosian research program carries several important implications. *First*, this approach shifts the assessment of bioethical validity from mere textual conformity or institutional authority toward an evaluation of its internal dynamics as a normative system of thought. What is examined, therefore, is not only the legal ruling itself, but also how that ruling emerges, develops, and is sustained through the interaction among the hard core, the protective belt, and its heuristic mechanisms.

Second, this framework enables a more balanced dialogue between Islamic bioethics and global bioethics. By presenting Islamic bioethics as a research program with a defined theoretical structure and internal mechanisms of development, it is no longer merely a collection of religious prohibitions or case-based responses, but an ethical tradition with its own methodological rationality and capacity for innovation.⁶² This, in turn, strengthens its epistemic legitimacy within international bioethical forums, which are often dominated by secular paradigms.

Third, this model clarifies the relationship between normative stability and the flexibility of *ijtihad*.⁶³ Foundational principles such as the sanctity of life and the prohibition of harm are not treated as obstacles to medical development; rather, they serve as the hard core that provides ethical direction for normative exploration. Meanwhile, methodological tools such as *maqāṣid al-sharīʿah*, *qawāʿid fiqhīyyah*, and the concept of *ḍarūrah* can be understood as components of the protective belt, enabling adaptive responses without sacrificing normative identity.

Fourth, this reconstruction can serve as a conceptual bridge between the instrumentalist and the indigenous approaches in Islamic bioethics. Within this framework, Islamic bioethics remains firmly grounded in the epistemological, theological, and legal structures that characterize the indigenous approach, ensuring that ethical principles are not detached from their underlying worldview and normative tradition. At the same time, its methodological development is articulated in a more explicit, systematic, and reflective manner, allowing it to engage critically with global bioethical theories commonly employed within the instrumentalist approach. In this

⁶² Osman and Omer, “Biosafety From The Maqasid Shariah Views.”

⁶³ Ibrahim et al., “Maqasid Al-Shariah Based Islamic Bioethics.”

way, interaction with global bioethics moves beyond superficial textual equivalence toward a theoretically self-aware engagement, while still preserving the continuity of Islamic normative identity.⁶⁴

Nevertheless, employing the research program framework as a tool for reconstruction also leaves several limitations that must be critically acknowledged. *First*, the analogy between scientific research programs and normative ethical traditions is never fully symmetrical. In the sciences, the success of a program ultimately remains connected to the empirical world through prediction and discovery. In bioethics, by contrast, the measure of “progress” is normative and evaluative, and thus inevitably involves philosophical debate over what counts as coherence, benefit (*maṣlaḥah*), or justice. Consequently, the categories of progressive and degenerative, when applied to ethics, can never be entirely value-neutral.

Second, there is a risk of methodological reductionism if the framework is not carefully qualified. The Islamic legal–ethical tradition encompasses rich spiritual, textual, and practical dimensions. Framing it solely as a research program may oversimplify this complexity into an overly neat structural model. For this reason, the Lakatosian framework should be understood as an analytical tool rather than a comprehensive description of how *shari‘ah* or *ijtibād* actually operate.

Third, the concept of a hard core in the Islamic context is not identical to the theoretical assumptions in science, since it is rooted in theological commitments that, for believers, are normatively final rather than provisional working hypotheses. This means that patterns of change within Islamic bioethics are shaped not only by rational–methodological considerations, but also by religious authority, established legal schools, and socio-political contexts that a Lakatosian model does not fully capture.

Fourth, while this approach highlights the internal coherence of a given tradition, it is less sensitive to power relations, institutional structures, and socioeconomic factors that often shape the production of fatwas and bioethical policies in practice. For this reason, a Lakatosian analysis should be complemented by sociological and historical approaches to avoid an overly idealized picture of normative rationality.

⁶⁴ Elmahjub, “Normative Account of Islamic Bioethics in End-of-Life Care.”

CONCLUSION

The primary problem of contemporary Islamic bioethics lies not in a lack of normative resources, but in its structural–epistemic weakness. The dominance of case-based juridical responses has led Islamic bioethics to develop in a reactive and fragmented manner, making it difficult for it to present itself as a coherent ethical framework within global bioethical discourse. By employing Imre Lakatos’s Methodology of Scientific Research Programs, Islamic bioethics can be analyzed as a normative research program possessing a theoretical core, adaptive instruments, and an internal trajectory of development.

The proposed reconstruction situates ontological–theological commitments concerning the human being, the nature of life, and moral accountability before God as the hard core. At the same time, *fiqh*, *maqāṣid al-shari‘ah*, *qawā‘id fiqhīyyah*, the concept of *ḍarūrah*, and other instruments of *ijtihād* are positioned as a dynamic protective belt. This structure is further reinforced by a heuristic function that is analytically parallel to the *ḍarūriyyāt al-khams*, in both their affirmative dimension (*wujūdān*) and preventive dimension (*‘adaman*), thereby enabling the development of ethical responses that remain adaptive to biomedical advances without losing their normative identity.

Through this framework, Islamic bioethics is no longer seen as a collection of isolated fatwas but as an ethical tradition endowed with methodological rationality, innovative capacity, and a developmental trajectory that can be systematically evaluated. This approach also serves as a conceptual bridge between instrumentalist tendencies oriented toward integration with global bioethics and indigenous approaches that emphasize the depth of Islamic epistemology, thereby opening space for a more productive and reflective synthesis.

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