

Qur'anic Perspectives on Human Creation and Contemporary Reproductive Ethics: A Thematic and Interdisciplinary Study

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Abstract

The development of modern reproductive technologies such as In Vitro Fertilization (IVF), genetic engineering, and contraception presents ethical challenges that demand a normative response from the interpretation of the Qur'an. This research aims to analyze the verses of human creation through thematic interpretation and examine their relevance to modern reproductive issues within the framework of Islamic bioethics. The research uses a literature study approach with qualitative methods, sourced from classical and contemporary tafsir books, especially Tafsir Al-Misbah and Tafsir Al-Azhar, and supported by scientific literature in the fields of embryology and reproductive medicine. The results of the study show that QS. Al-Mu'minun verses 12-14 describe the successive stages of human creation that are in harmony with modern embryology. The map of the verses of human creation in the Qur'an includes the phases of *nutfah*, *'alaqah*, *mudghah*, and the formation of bones and flesh scattered in various surahs. These findings confirm that IVF is acceptable as long as it does not violate the principle of *nasab*, genetic engineering is permissible for benefit-oriented therapeutic purposes, and contraception is seen as responsible reproductive planning. This study also found a paradigm shift in interpretation from textual-descriptive to contextual-reflective as the foundation of modern reproductive ethics.

Human Creation; Modern Reproduction; Islamic Bioethics; QS. Al-Mu'minun.

Abstrak

Perkembangan teknologi reproduksi modern seperti In Vitro Fertilization (IVF), rekayasa genetika, dan kontrasepsi menghadirkan tantangan etis yang menuntut respons normatif dari tafsir Al-Qur'an. Penelitian ini bertujuan menganalisis ayat-ayat penciptaan manusia melalui tafsir tematik dan mengkaji relevansinya terhadap isu-isu reproduksi modern dalam kerangka bioetika Islam. Penelitian menggunakan pendekatan studi pustaka dengan metode kualitatif, bersumber pada kitab tafsir klasik dan kontemporer, khususnya Tafsir Al-Misbah dan Tafsir Al-Azhar, serta didukung oleh literatur ilmiah di bidang embriologi dan kedokteran reproduksi. Hasil penelitian menunjukkan bahwa QS. Al-Mu'minun ayat 12-14 menguraikan tahapan penciptaan manusia secara berurutan yang selaras dengan embriologi modern. Peta ayat-ayat penciptaan manusia dalam Al-Qur'an mencakup fase *nutfah*, *'alaqah*, *mudghah*, hingga pembentukan tulang dan daging yang tersebar dalam berbagai surah. Temuan ini menegaskan bahwa IVF dapat diterima selama tidak melanggar prinsip *nasab*, rekayasa genetika dibolehkan untuk tujuan terapeutik yang berorientasi pada kemaslahatan, dan kontrasepsi dipandang sebagai perencanaan reproduksi yang bertanggung jawab. Penelitian ini juga menemukan pergeseran paradigma tafsir dari tekstual-deskriptif menuju kontekstual-reflektif sebagai fondasi etika reproduksi modern.

Kata Kunci: Penciptaan Manusia; Reproduksi Modern; Bioetika Islam; QS. Al-Mu'minun.

INTRODUCTION

The verses of the Qur'an about the creation of man occupy a central position in the treasure of interpretation because they are in direct contact with the ontological question, namely, where

man comes from, what he was created for, and what his position is in the universe. The Qur'an describes the process of human creation through stages such as *nutfah*, *'alaqah*, and *mudhghah* which are spread in various surahs, including QS. al-Mu'minun [23]:12-14 and QS. al-Haj [22]:5 (Octaviani Putri et al., 2025). In the tradition of interpretation, *mufassir* shows different approaches: from the narrative-history and rational-philosophical in the classical period, to the scientific and existential approach in the modern period. Meanwhile, modern interpretation integrates the understanding of the Qur'an with scientific findings, especially embryology, and shows the compatibility between the order of human creation in the Qur'an and the chronology of fetal development (Irawan et al., 2025). These studies, although epistemologically important, are generally apologetic-scientific and have not been able to respond normatively to the new problems born of the advancement of human reproductive technology

It is this advancement in reproductive technology that now presents challenges that cannot be ignored. Methods such as In Vitro Fertilization (IVF) and surrogate motherhood have paved the way for couples facing infertility problems, but at the same time raise big questions in social, ethical, and religious aspects (Octaviani Putri et al., 2025). Likewise, genetic engineering, modern contraception, and various biomedical interventions for pregnancy are constantly evolving and have not been accommodated within the framework of conventional interpretation. The main problem that arises is the tension between medical needs and Islamic legal concerns related to the clarity of *nasab*, the validity of marriage, and the prohibition of donor involvement outside of legal partners (Azhim et al., 2025). These issues are not only technical, but also touch on the ethical and theological realm that demands interpretation to play a role beyond just scientific confirmation.

Therefore, the relationship between the interpretation of the Qur'an and science needs to be redirected, not just stopping at proving suitability, but must move towards the formation of a value framework that is able to respond normatively to reproductive practices. The approach of *tafsir al-'ilmī* should open up a space for dialogue between revelation and scientific reality so that the Qur'an can function as a living source of value (Rahman & Setiawan, 2025). In this context, the framework of *maqasid al-shari'ah* is a relevant instrument because it can answer contemporary problems, including reproductive technology and biomedical issues (Amrulloh & Zaman, 2024). Thus, this study seeks to fill this gap by offering a reading of interpretation that is not only descriptive-scientific but is directed at guiding values for responsible human reproductive practices in the midst of contemporary biomedical developments.

Several previous studies have examined the verses of human creation from the perspective of the relationship between revelation and science. Fitriani et al. (2021) for example, emphasizing the correspondence between the stages of human creation in the Qur'an and modern embryology. A similar approach was also developed by Octaviani Putri et al. (2025) through the interpretation of science in the verses of creation. These studies are important because they show a dialogue between sacred texts and science, but they tend to stop at the descriptive-comparative level and have not touched on the ethical and social implications of the development of modern reproductive technology. On the other hand, character-based studies, such as the analysis of Maurice Bucaille 's (Al Iman et al., 2025) or Buya Hamka's interpretation of QS. al-Mu'minūn [23]:12-14 (Acim, 2023) show the richness of the *mufassir*'s perspective in understanding human creation. However, these studies are still limited to certain *mufassir* frameworks and have not

directly answered the problems that arise due to advances in reproductive biotechnology, such as IVF, gender determination, and genetic manipulation.

This condition shows the existence of a research gap, the need for integration between thematic interpretations of the verses of human creation and interdisciplinary analysis of modern reproductive issues that are applicable and reflective. It is not enough to prove that the Qur'an is in accordance with science, but it needs to be placed as a source of value that is able to give ethical orientation to the use of technology. Based on this gap, this study aims to analyze biological verses about human creation through the method of thematic interpretation (*maudhu'i*), then relate it to the development of modern reproductive science within the framework of Islamic bioethics. The selection of verses related to biological aspects is based on three considerations: first, these verses build a direct bridge between religious discourse and modern science. Second, the verses have a wealth of interpretation in the classical and contemporary traditions that allows for a comparative analysis of the interpretive paradigm. And third, these verses contain a strong ethical dimension of the sanctity of human life and dignity.

METHODS

This research uses a *library research* approach with an interdisciplinary qualitative method, integrating the study of Qur'an interpretation and modern science, especially in the field of reproduction. This approach places the verses of human creation not only as normative texts, but also as a source of value that can be contextualized with the development of contemporary science. Through a thematic interpretation approach (*maudhu'i*), this study seeks to collect and analyze verses related to the process of human creation comprehensively, then relate them to modern reproductive issues such as in vitro fertilization, genetic engineering, and contraception within the framework of Islamic ethics.

The data sources in this study are divided into two, namely primary and secondary data sources. Primary data sources are in the form of books of tafsir, both classical and contemporary, that directly discuss the verses of human creation, including Tafsir Al-Misbah by M. Quraish Shihab, Tafsir Al-Azhar by Buya Hamka, and other relevant tafsir books. The secondary data sources include books and scientific journals related to the research theme, including literature in the fields of embryology, reproductive medicine, and Islamic bioethics studies that support interdisciplinary analysis in this study.

The data collection technique is carried out through documentation studies by identifying and collecting Qur'anic verses related to human creation and the process of reproduction, then classifying them thematically according to the biological phases described in the text of revelation. Furthermore, the data analysis technique uses a descriptive-analytical method, namely by presenting the results of the interpretation of verses systematically and analyzing them by relating the principles of *maqasid al-shari'ah* and the development of modern reproductive science. This analysis process aims to produce an understanding that is not only textual, but also contextual and reflective, so as to be able to provide an ethical framework that is applicable in facing the challenges of reproductive biotechnology in the modern era.

RESULTS AND DISCUSSION

Map of the Verses of Human Creation

The analysis of the map of the verses of human creation is preceded by reinforcing that man is the creation of Allah SWT. Which comes from the element of the earth.

وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ صَلْصَالٍ مِنْ حَمَإٍ مَسْنُونٍ ﴿٢٦﴾

“And indeed, We have created man (Adam) from dry clay from black mud that was formed. (Q.S. Al-Hijr: 26)

Quraish Shihab in Tafsir Al-Misbah explains that this verse details the events of human events on earth as proof of Allah’s power that gives life and death. The word *shalshal* (صلصال) comes from *shalshalah*, which refers to very hard and dry soil without going through the process of burning. The word *hama*’ (حَمَإٍ) means land that is mixed with water and smells, while *masnun* (مَسْنُونٍ) means soil that has been poured so that it is easy to shape according to one’s will, or, according to some mufassir it means land that has long passed its time (Shihab, 2002). This implies that man has an essential origin with the natural element because man was created in the context of divine decree.

The next discussion is focused on verses that state the process of human creation specifically and biologically. Like Surah Al-Mu’minun verses 12-14, which reveals the process of human creation from the essence of the earth, then becomes *nutfah*, *‘alaqah*, *mudhghah*, until bones are formed, wrapped in flesh, and perfected into perfect creatures (Kiptiyah, 2018). These verses affirm the existence of structured and continuous biological processes. Furthermore, Surah Al-Hajj [22]:5 strengthens this explanation by describing the development of human embryos as a sign of Allah’s power (Husairi, 2019). In the end, the study of verses on human creation biologically reveals the harmony between the Qur’an’s revelations and modern research on human reproduction, thereby underscoring the relevance of these verses in addressing contemporary reproductive issues. The classification of verses that discuss the creation of man is shown in the Table 1 below.

Table 1: Classification of Qur’anic Verses on the Biological Phases of Human Creation

Biological phase	Verse	Key Arabic pronunciation
<i>Nutfah</i>	QS. Al-Mu’minun:13; QS. Al-Insan: 2	نطفة
<i>Alaqah</i>	QS. Al-Mu’minun:14; QS. Al-Alaq: 2	علقة
<i>Mudhghah</i>	QS. Al-Mu’minun:14; QS. Al-Alaq:5	مضغة
Body shaping	QS. Al-Mu’minun:14	عظام - لحم
Uterine environment	QS. Az-Zumar:6	ظلمات ثلاث
Embryo Variance	QS. Al-Hajj:5	مخلقة وغير مخلقة

From the soil, humans were formed, as implied in several verses of the Qur'an that became the subject of thematic interpretation this time. In certain sections, it is stated that the order of change starts from *nutfah*, *'alaqah*, and *mudghab*, then follows the process of structuring and lining muscles. Although Adam is used as a starting example, this picture also refers to each individual who develops in the womb. Q.S. Al-Mu'minun verses 12-14 are often found in tafsir as the basis for such multi-level illustrations. The creation is described and starts from a clay extract (*min tin*), changes its form into a drop of water, sticks like a lump, then a lump of flesh is not clearly shaped, after that, bones are formed, covered with flesh, until a perfect figure emerges as a creature (Saifuddin et al., 2023). The interpretation of this verse shows the textual relationship between the redaction of the Qur'an and the description of the early biological stages of man, which is the basis of the thematic study in this study.

Furthermore, several verses other than in Surah Al-Mu'minun also form a picture of the process of human creation, for example Surah Al-'Alaq (96:2), which states that man comes from *'alaqah*, which in conceptual interpretation is linked to the early stage of embryogenesis. On the other hand, Surah Al-Hijr (15:26) and Surah As-Sajdah (32:7-9) show the origin of the earth (*turab*), which then gradually developed into living beings. Such an opinion is found in the analysis of contemporary interpretation, despite warnings of the dangers of the concordistic method, i.e., attempts to harmonize the content of the Qur'an with today's scientific results, literally without sufficient attention to the linguistic structure and hermeneutics of interpretation (Al Iman et al., 2025).

The thematic study of this verse map also includes a contextual discourse between Adam's creation, specifically, and human creation in general, through the process of biological reproduction. Research using contemporary literature shows that the verses in Surahs such as Al-Baqarah and an-Nisā', although they do not tell the embryonic stage in detail, mention (*kbalaqnakum*) of a single soul (*nafs wāhidah*), then develop to show two dimensions of creation: the beginning of humanity through Adam, and the continued creation through *the nutfah* in a reproductive context (Latansa, 2024). This study shows the interdisciplinary relevance between the text of interpretation and the issue of modern reproduction.

The Qur'an speaks of the creation of man in two different but complementary contexts. The first context is the creation of Adam as the first man, which is unique and non-repeatable. The second context is the process of reproduction, which is the mechanism that God has set for humans to continue to develop and have offspring after Adam. Understanding these two contexts separately but connected is key in the study of thematic interpretations of human creation so that the reader does not confuse two inherently different processes. In reading the relationship between these two contexts with modern biological science, a proportionate attitude remains necessary, without imposing an excessive conformity between the text of revelation and scientific claims (Luthifah et al., 2023).

Departing from this framework, Q.S. al-Mu'minūn [23]:12-14 becomes the central reference verse. This verse describes the stages of human development in the womb in order: from *nutfah*, to *'alaqah*, then *mudghab*, to the formation of bones wrapped in flesh, and finally to being born as a perfect being. M. Quraish Shihab in Tafsir al-Misbah emphasized that this sequence reflects the principle of *tadarruj*, which is a process that takes place gradually, not just like that, not only applies

to the physical formation of the fetus in the womb, but also covers the entire course of human life. Human maturity, according to him, is achieved gradually through the phases of infancy, childhood, adolescence, adulthood, and old age. Along with that, psychological, intellectual, and spiritual dimensions also develop, including the maturity of thought, the formation of morals, and the deepening of religious awareness (Hidayatullah et al., 2025). This principle is relevant to modern embryology: the development of the human fetus occurs through orderly and impassable phases, as evidence that the law of causality in nature works according to God's decree (Basril et al., 2025).

Hamka in Tafsir al-Azhar sees that the verse actually emphasizes that the origin of human beings still comes from *nutfah*, no matter how advanced technology is. It is still sourced from the same and simple element, namely, *nutfah*. According to Hamka, the Qur'an deliberately describes this process to build an ethical awareness that humans do not have the right to have absolute power over life, because from the beginning, human life is in the Divine will (Amrullah, 1982b). Another verse is about reproduction, namely QS. Az. Zumar [39:6] is about man being formed in the "three darknesses". According to Quraish Shihab, the phrase *zulumat thalāth* interprets a description of the biological and protective conditions of the uterus that does not have to be understood technically-anatomically, but rather as an affirmation that the reproductive process takes place in a complex and maintained system (Shihab, 2005a). When viewed from modern reproduction, embryo growth turns out to go through biological phases that can be reviewed by scientific methods. Tafsir al-Miṣbāḥ places this scientific information as an enrichment of human understanding of *the sunnatullah*, not as a benchmark for the truth of revelation (Shihab, 2005a).

Hamka's statement touches on the question of value in Reproduction, referring to QS. al-'Alaq [96]:2. This verse is understood as a criticism of modern humans who tend to fulfill their intellectual and technological abilities, including in the field of reproduction, without being accompanied by spiritual responsibility (Amrullah, 1982a). Contemporary interpretations from al-Misbah to al-Azhar show another way: the creation verse can be linked to modern scientific findings. The Qur'an provides a theological and ethical framework for the origin and process of human reproduction, while science explains its biological mechanisms. The two are not in a competitive relationship, but are complementary (Luthifah et al., 2023)

The Relevance of the Tafsir of Surah Al Mu'minun, verses 12-14, to the Issue of Modern Reproduction

1. The Suitability of the Order of the Stages of Human Creation in QS. Al-Mu'minun verses 12-14 with modern embryology

In QS. Al-Mu'minun verses 12-14, which read:

وَلَقَدْ خَلَقْنَا الْإِنْسَانَ مِنْ سُلَالَةٍ مِّنْ طِينٍ ﴿١٢﴾ ثُمَّ جَعَلْنَاهُ نُطْفَةً فِي قَرَارٍ مَّكِينٍ ﴿١٣﴾ خَلَقْنَا النُّطْفَةَ عَلَقَةً فَخَلَقْنَا الْعَلَقَةَ مُضْغَةً فَخَلَقْنَا الْمُضْغَةَ عِظْمًا فَكَسَوْنَا الْعِظْمَ لَحْمًا ثُمَّ أَنْشَأْنَاهُ خَلْقًا آخَرَ فَتَبَارَكَ اللَّهُ أَحْسَنُ الْخَالِقِينَ ﴿١٤﴾

"Indeed, We have created man from the essence of the earth (12). Then we made semen in a solid place (womb) (13). Then We made the semen into something hanging (blood). Then, we made something hanging from a lump of meat. Then Karni turned the lump of meat into bones. Thus, the bones were wrapped in meat. Then, we make

it a creature that is another form. Most Holy of Allah, the best of the Creator (14).” (QS. Al-Mu'minun: 12-14)

The above verse outlines the seven stages of human creation in order. Al-Razi in *Mafatih al-Ghayb* explains that each stage is a separate dignity that is different in essence from the previous stage. The first stage begins with *sulālah min tīn* (essence of the earth) as the origin of the creation of the human body. The second stage is *nutfah*, which is semen stored in the *sulbi* bones of the fathers, then emitted through conjugal relations into the womb, so that the uterus becomes *qarār makīn*, a solid and protected place for the *nutfah*. The third stage, *nutfah*, turns into *'alaqah*, which is blood that clots. The fourth stage, *'alaqah*, turns into *mudghah*, which is a lump of meat the size of a chunk that can be chewed. The fifth stage, *mudghah*, turns into *'izām* (bones). In the sixth stage, the bones are wrapped in flesh, so that the flesh functions as a garment that covers and protects the bones. The seventh and final stage is *the ansha'nabu khalqan akbar* of Allah, making it a completely different being from before: the originally inanimate became living beings, the dumb became speakable, the deaf became hearing, and the blind became seeing. Al-Razi added that Ibn 'Abbās interprets this phase not only as a blow of the spirit, but covers the entire journey of human life after birth, from childhood, adolescence, adulthood, to the growth of intellect, understanding, and religious awareness. This sequence of development indicates the process of human embryo growth that has been recognized by modern embryology (Rosa et al., 2025).

In modern embryology, the development of the human embryo begins with the process of fertilization between the sperm and the egg, which produces the zygote, also called *the nutfah*. The zygote then develops into a blastocyst attached to the uterine wall, shaped like a leech (*alaqah*). After that, the embryo undergoes the process of gastrulation and organogenesis, which forms a body structure in the form of a lump of flesh (*mudghah*). Furthermore, there is bone formation (*osteogenesis*) and the formation of muscles surrounding bone (*myogenesis*). This process lasts until the embryo finally develops into a fetus that is ready to be born. Furthermore, the description in the Qur'an of this stage of embryonic growth has already attracted the interest of scientists, such as Dr. Keith L. Moore, an expert in anatomy and embryology, who said that the explanation in the Qur'an of how humans develop is very precise and in accordance with the latest scientific discoveries (Moore, 1986). This information shows that what is in the Qur'an has already revealed things that have only been discovered by scientists in the field of embryology. Furthermore, the cooperation between the interpretation of the Qur'an and modern embryology helps us better understand the process of human creation.

In the study of language and concepts regarding terms in the field of embryology, mentioned in Surah Al-Qur'an. Verses 12-14 in Al-Mu'minun explain the deep and hidden meaning. In this verse, Allah SWT describes the steps of human creation, which consist of five stages, as explained earlier. Each of these terms has a special meaning in Arabic that reflects the biological processes that occur when the human embryo develops, in the interpretation of the Qur'an. Al-Mu'minun verses 12-14, M. Quraish Shihab uses a science-based approach to discuss the steps of how human beings are created. He associated the term with the process of modern embryology, pointing out the parallels between God's revelation and scientific knowledge (Budiana & Gandara, 2021).

Linguistically, the word *nutfah* comes from the root word meaning droplet, which describes a very small sperm fluid. '*Alaqah* means something that sticks or hangs, which can be explained as the condition of the embryo attached to the wall of the uterus. *Mudghah* means a herd of meat, which refers to the shape of an embryo similar to a lump of meat. *Iz'am* means bones, which describes the process of forming the skeleton of the body. The last is *Labm*, which means meat, indicating the formation of muscles as well as other tissues of the body. In this sense, it is in line with the stages of embryonic development according to modern embryology.

This approach has attracted the attention of scientists and mufassir to understand more deeply the relationship between sacred texts and science, as well as how the two can complement each other's understanding of the human creation process (Afkarina & Kurniawan, 2022). In comparing the meaning of the words in the sacred text with the concepts of modern science, one can find a very amazing harmony. This can reinforce the belief that the Qur'an is a revelation from God, which is not only relevant at any time, but also has a deep scientific understanding and can be enjoyed by people at various times. Thus, the understanding of terms in embryology is contained in QS. Verses 12 to 14 in Surah Al-Mu'minun not only provide extensive knowledge and deep knowledge, but also help strengthen the faith of Muslims about the majesty and greatness of Allah SWT (Kiptiyah, 2018).

This integrative understanding between the interpretation of the Qur'an and embryology is an important conceptual foundation in examining various problems that arise in the practice of human reproduction. Therefore, the next discussion will examine various modern reproductive issues as the implications of technological advances in the field of medicine

2. Various Issues of Modern Reproduction and Relation to Contemporary Interpretation

a) IVF (In Vitro Fertilization)

IVF emerged as one of the medical efforts to help married couples who experience fertility disorders to have children. Before the IVF method was developed. Artificial insemination has been known as the Solution. Artificial insemination is carried out by inserting the husband's sperm into the wife's uterus using an injector, so that the sperm can more easily meet the egg. However, the success rate of this method is relatively low, which is 15% (Albar, 2004). In contrast to artificial insemination, the IVF method allows the fertilization process to occur outside the woman's body under more controlled conditions, so the chances of successful pregnancy tend to be higher, especially in couples with complex fertility disorders (Bano et al., 2025).

In the medical world, IVF is known as *In Vitro Fertilization* (IVF). The term *in vitro* comes from Latin, meaning "outside the body", while *fertilization* means fertilization. Medically, IVF is an action taken by doctors to help the fertilization of eggs by sperm outside the woman's body. In English, this method is known as *Test Tube Baby* or *In Vitro Fertilization* (IVF). This process is carried out by taking an egg (ovum) from the ovaries, then meeting with sperm, and is stored in a laboratory before being put back into the woman's womb (Kurdi, 2005). The IVF process carried out by medical personnel includes several stages, namely:

1. The wife is given ovulation-inducing drugs from the beginning of menstruation to stimulate the ovaries to produce eggs. Medication is stopped after the egg matures
2. Egg development and maturation are monitored daily through blood tests and ultrasound.
3. After the egg is mature, it is taken by inserting a needle through the vagina using ultrasound guidance

In *vitro fertilization* (IVF) technology allows for fertilization outside the womb, which is often perceived as contrary to the concept of human creation in the Qur'an. This perception generally arises from a literal understanding that places the reproductive process solely in a natural context without technological intervention. However, the interpretation of QS. Al-Mu'minun 12-14 shows that the essence of human creation lies in the biological stages set by Allah, not in the location of conception alone. Thus, the focus of the verse emphasizes the regularity of the creation process more than the technical means used. The concept of *nuthfab* can be understood as a reproductive cell that can scientifically undergo fertilization both naturally and through medical intervention (Rosa et al., 2025). This understanding allows for an integration between the teachings of revelation and modern medical knowledge. In this framework, IVF does not deny the Divine will, but rather is part of human endeavor that remains within the law of causality created by God. Buya Hamka's interpretation also emphasizes that biological processes are only wills, while essential creation remains in God's power (Acim, 2023). Therefore, the relevance of QS. Al-Mu'minun 12-14 against IVF lies in the affirmation that reproductive technology is acceptable as long as it does not violate *Sharia* principles such as *nasab* and moral justice.

In addition to the biological aspect, QS. Al-Mu'minun 12-14 also provides an ethical framework for looking at IVF. This ethical framework emphasizes that advances in reproductive technology must always be balanced with moral and spiritual considerations. The successive stages of human creation show the value of prudence and respect for life from the early phases. The sequence reflects a gradual process that should not be treated haphazardly. Scientific interpretation emphasizes that each phase of embryonic development has moral value that cannot be reduced to a mere object of experiment (Kiptiyah, 2018). This view strengthens the principle of protection of human dignity from the earliest stages of its existence. In the context of IVF, this paragraph is relevant to restrict practices such as excessive embryo freezing or embryo selection without a valid medical reason. This approach is in line with the integrative view between the Qur'an and science that places technology as a tool, not an end goal (Afkarina & Kurniawan, 2022). Thus, QS. Al-Mu'minun 12-14 serves as a source of normative ethics that guides the practice of IVF to be in harmony with the principles of humanity and the sanctity of life.

b) Genetic Engineering

Genetic engineering is the activity of manipulating genes using modern biochemical and biotechnological techniques. The development of genetic engineering began with its discovery by Genentech in 1976 to produce human insulin. In 1982, genetically modified insulin began to be produced and marketed widely (Riggs, 2021). One of the applications of genetic engineering in the field of gene therapy and DNA technology is cloning. This

technology is a debate, especially from the social and religious side. Muslim scientists were aware of the negative impact of cloning, so there was an attempt to adapt its use to contemporary Islamic understandings. The purpose of this effort is so that the technology can help couples who experience fertility disorders in obtaining partners who experience fertility disorders in obtaining offspring through the reproductive process.

Scholars' views on genetic engineering are different. Some consider this technology beneficial to humanity, while others consider it dangerous and prohibit its application. KH. Ali Yafie stated that cloning can be a threat because it equates humans with animals and plants. In Indonesia, the practice of human cloning is prohibited because it can cause an unclear fate for children. Through cloning, the human reproductive process raises the problem of maintaining offspring, because cloned children only inherit genes from the owner of the body. However, if the cell comes from a man who is bound in a valid marriage, then the child born is still considered valid according to Islam, even though genetically only inherits genes from one party (Jamaa, 2016).

Genetic engineering issues, such as *gene editing*, are often associated with concerns about "altering God's creation." This concern arises primarily from the assumption that genetic interventions are synonymous with actions beyond the limits of human nature. However, the interpretation of QS. Al-Mu'minun 12-14 shows that the creation of man took place through a gradual process that can be studied and understood scientifically. This gradual process actually hints at the existence of the order of natural laws that can be explored through science. This understanding opens up space for the use of genetic science for therapeutic purposes, such as the prevention of congenital diseases, without having to be seen as a form of opposition to the Divine will (Rosa et al., 2025). This approach places genetic engineering within the framework of the benefits and protection of human life. Integrative interpretation emphasizes that prohibition in Islam is more directed at changes that are destructive and violate benefits, rather than innovations aimed at preserving life (Hidayati et al., 2025). Therefore, the relevance of QS. Al-Mu'minun 12-14 lies in the affirmation of the principle of moral responsibility in the use of genetic engineering.

c) Modern Contraceptives

Contraception comes from a combination of the word counter and conception. The word counter means to prevent and withhold, while conception means the encounter between the egg and the sperm cell that can lead to pregnancy. Thus, contraception is an action that is carried out deliberately to prevent pregnancy, namely by inhibiting fertilization between the egg and the sperm cell. The purpose of using contraceptives is as follows: a) Supporting and strengthening the acceptance of the Family Planning (KB) program, b) Controlling the birth rate, which includes three phases, namely preventing pregnancy, delaying pregnancy, and terminating pregnancy or fertility (Britton et al., 2020).

The types of contraceptives can be divided into two main groups. First, the contraceptive method is simple, which is a relatively easy method, and some do not use tools. These methods include the Amenorrhea Lactation Method (MAL), the calendar method, interrupted intercourse, the cervical mucus method, and the basal body temperature

method. In addition, there are simple methods that use tools such as diaphragms, condoms, and seviks. Second, modern contraceptive methods, which are methods using medical technology, such as pills, injections, *implants*, intrauterine contraceptives (AKDR/IUD), Female Surgery Methods (MOW), and Male Surgery Methods (MOP).

Based on the duration of use, contraceptives are also divided into two groups. Long-Term Contraceptive Methods (MKJP) are effective methods, have a low failure rate, and can be used for long periods of time, such as IUDs, Implants, and MOWs. Meanwhile, non-MKJP methods include pills, condoms, MALs, and injections (Swandewi, 2020).

Modern contraception is often debated in *fiqh* discourse because it is considered to intervene in the potential of human creation. This debate reflects the tension between the development of health technology and the normative understanding of religion. QS. Al-Mu'minun 12-14, gives the perspective that the creation of man occurs after going through certain stages, so the prevention of pregnancy before the occurrence of *nuthfab* cannot be equated with the abortion of life. This perspective emphasizes the importance of distinguishing between the prevention and the disappearance of life that has already been formed. Classical and contemporary interpretations show that Islam provides space for birth arrangements with consideration for the benefit of the family and the health of the mother (Acim, 2023). The space of ability is always accompanied by the principles of moral and ethical responsibility. Thus, modern contraception can be understood as part of responsible reproductive planning, as long as it does not permanently damage biological functions without Sharia reasons (Rosa et al., 2025).

Contemporary Interpretation and Paradigm Shifts in Human Creation

The development of biological sciences and reproductive technology in recent decades has forced the interpretation of the Qur'an out of the comfort zone of a literal approach. Reading the verses of human creation today is not enough to stop at the meaning of words and sentence structures, but must move into more reflective and contextual areas of meaning. This is where modern interpretation was born, not as a rejection of classical tradition, but as a correction to its tendency to stop too much on linguistic and historical aspects, while the ethical and social dimensions are often left hanging (Esack, 2005).

The relevance of QS interpretation. Al-Mu'minun 12-14, on the issue of modern reproduction lies in its ability to bridge revelation and science. This bridge allows for a constructive dialogue between religious teachings and the development of contemporary science. These verses not only explain the biological origins of humans but also instill ethical values, prudence, and responsibility in the management of reproductive technology. These values are an important foundation in assessing the limits of abilities and prohibitions in modern biomedical practice. IVF, genetic engineering, and modern contraception can be placed within the framework of the Qur'an as long as they are directed at the benefit and do not violate the basic principles of sharia (Moore, 1986). This approach confirms that the main orientation of technology is the protection and glorification of human life. With a proportionate scientific interpretation approach, QS. Al-Mu'minun 12-14 remains relevant as a normative reference in dealing with the dynamics of modern reproduction, while at the same time affirming that scientific progress should strengthen, not affirm, spiritual and human values.

Within this framework, interpretation is no longer understood simply as an activity of explaining the text, but rather as a conscious effort to dialogue revelation with the ever-changing reality of man. Quraish Shihab reminds us that the Qur'an was never intended as a book of science, but as a book of instruction that leads people to the basic values of life, dignity, and moral responsibility (Shihab, 2005b). Therefore, the verses about the creation of man should not be treated as biological reports, but rather as a theological foothold for understanding who man is and what are the limits of his role in managing life.

This difference in orientation is evident when modern mufasir reads QS. al-Mu'minun [23]:12–14. If classical interpretation tends to pay attention to the lexical sequence of *nutfab-'alaqah-mudghab*, then contemporary interpretation asks: why does the Qur'an describe the creation of man as a gradual process? This question shifts the focus from how the process happens to what value is to be instilled through that process. Here, the creation of man is understood not as just a biological event, but as an ethical message of order, honor, and responsibility. Fazlur Rahman's approach through the *double movement method* clarifies the direction of this change. Rahman does not ask the mufasir to pursue the technical details of the verse, but rather extracts universal moral principles from the historical context of revelation, and then tests them again in modern reality (F. Rahman, 1982). In the issue of human creation, what is brought to the present is not the details of the embryo, but the realization that life has a sacred value and should not be treated solely as an object of experiment.

With this paradigm, contemporary interpretations refuse to be defensive against science, but also not to submit entirely to scientific claims. Science explains the mechanisms of life, while the Qur'an offers an orientation on man's purpose and limits in touching that life. Arkoun calls this process an attempt to build "critical rationality" in understanding religious texts, so that revelation is not confined to the past, but also does not dissolve in the euphoria of modernity (Arkoun & Lee, 2019). As a result, the verses of human creation are read as ethical foundations, not just cosmological narratives. The relevance of the Qur'an lies precisely in its ability to give value to real problems, including reproductive technology. This shift from textual-descriptive interpretation to contextual-reflective interpretation is what keeps the Qur'an alive as a source of moral orientation in the midst of the complexity of today's reproductive problems.

CONCLUSION

This study found that QS. Al-Mu'minun verses 12–14 describe the stages of human creation in order, from *nutfab*, *'alaqah*, and *mudghab* to the formation of bones and flesh, which are in harmony with the stages of modern embryology as recognized by Dr. Keith L. Moore. This harmony confirms that the verse provides a theological and ethical foundation that is relevant to contemporary reproductive issues. In the context of IVF, the essence of creation lies in the regularity of biological processes, not in the location of conception, so that IVF can be accepted as long as it does not violate the principle of *nasab*. In the context of genetic engineering, this verse makes room for the use of genetics for therapeutic purposes that are oriented towards benefit. As for the context of contraception, this verse emphasizes the difference between the prevention of pregnancy before the formation of germs and the elimination of existing life.

In addition, this study finds a paradigm shift in interpretation from a textual-descriptive approach to a contextual-reflective approach, which makes the verses of creation an ethical foundation in the face of the complexity of modern reproductive technology. This research has implications for the importance of an integrative interpretation approach that brings together revelation with science in a proportionate manner, without letting go of the ethical and spiritual dimensions, as a contribution to the development of Islamic bioethics discourse. However, this study has limitations in the scope of tafsir sources that focus on Tafsir Al-Misbah and Tafsir Al-Azhar, and is thematic-literature, so it has not touched the empirical dimension of the field. Further research is recommended to expand the cross-textual comparisons of different schools, as well as to examine other reproductive issues such as surrogacy, embryo sex, and management of frozen embryos within the framework of similar thematic interpretations.

DECLARATION OF USING AI

The authors used Claude AI or ChatGPT to improve language and readability. Grammarly is also used to justify good and true writing. The author reviews and edits the output and is solely responsible for the content.

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