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Mapping the Islamic Ethical Discourse on Prenatal Diagnosis and Termination of Pregnancy: A Methodological Analysis

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Abstract

The development of prenatal diagnosis technologies has created challenging ethical situations and raised complex ethical questions. The hardest among these is the question of whether to continue or terminate pregnancies due to fetal anomalies. This article examines the Islamic methodological approaches that are employed to resolve contemporary issues pertaining to prenatal diagnosis and termination of pregnancy due to fetal anomaly. The objective is, firstly, to understand on which basis the various Islamic views and perspectives have been constructed, and secondly, to assess the rules and principles that Muslim jurists apply to arrive at decisions regarding prenatal diagnosis and termination of pregnancy across the different schools of thought. This helps in identifying the methodological characteristics of contemporary Islamic discourse on prenatal diagnosis and termination of pregnancy, and recognizing existing gaps. This methodological analysis aspires to generate further and richer discussion on how to develop thorough ethical approaches to prenatal diagnosis and termination of pregnancy due to fetal anomaly with the aim of advancing antenatal care for Muslim patients. Key concepts and principles within Islamic theology, law, and ethics are explored.

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Keywords

Islamic bioethics – prenatal diagnosis – termination of pregnancy – fetal anomaly – methodology

الخطاب الأخلاقي الإسلامي حول تشخيص ما قبل الولادة وأجهزة الأجنة ذات العيوب الخلقية: رصد وتحليل المقاربات المختلفة

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الخلاصة

ساهمت التطورات الطبية الحديثة في مجال تشخيص الأجنة قبل الولادة في طرح العديد من الإشكالات الأخلاقية المعقدة. أحد أكثر هذه الإشكالات تعقيداً هو سؤال إجهاض الأجنة ذات العيوب الخلقية. يسعى هذا المقال إلى استقراء وتحليل المقاربات المنهجية المختلفة في الخطاب الإسلامي حول العضلات الأخلاقية المتعلقة بتشخيص وإجهاض الأجنة ذات العيوب الخلقية. وتتلخص أهداف المقال فيما يلي: أولاً، استقراء وفهم الأسس التي بُنيت عليها وتشكلت من خلالها الرؤى الإسلامية المختلفة. ثانياً، دراسة وتحليل الأصول والقواعد التي اعتمدها الفقهاء من مختلف المذاهب والتيارات لصياغة الأحكام الشرعية المتعلقة بتشخيص وإجهاض الأجنة ذات العيوب الخلقية. يعرض هذا المقال لعدد من المفاهيم والمبادئ التي تنتمي إلى حقول معرفية مختلفة؛ منها الفقه والعقيدة والأخلاق. كما ويطمح إلى تحفيز نقاشات أوسع وأعمق حول كيفية تطوير مقاربات أخلاقية أكثر شمولية للتعامل مع قضايا تشخيص وإجهاض الأجنة ذات العيوب الخلقية، حتى يتسنى تقديم رعاية صحية أفضل للرضى المسلمين.

الكلمات المفتاحية

الأخلاقيات الطبية والحيوية في الإسلام – تشخيص ما قبل الولادة – إسقاط الحمل – نشوهات الجنين – المنهجية

1 Introduction

The development of various reproductive technologies, including prenatal diagnosis, seems to impact not only the way parents think about their offspring but also their role in “producing” and “choosing” them. Such technologies offer a range of opportunities and provide means that help parents make more informed decisions about their offspring. At the same time, they can raise very difficult ethical questions. The challenge of prenatal diagnosis lies in the information it reveals about the health of the fetus since it aims to identify congenital anomalies at an early stage during pregnancy. A congenital anomaly is defined as a “structural or functional anomal[y] that occur[s] during intrauterine life ... [and] may be identified before or at birth, or later in life” (WHO 2022). A confirmed diagnosis of a congenital anomaly implies that the question of whether to keep or terminate the anomalous fetus may be inescapable. Prenatal diagnosis is thus linked in an intrinsic way to the question of abortion, which often creates high pressure on peoples’ personal and ethical worldviews (al-Alaiyan 2014; Haidar et al. 2015).

Religion, as an ethical system, seems to play a major role in decisions regarding prenatal diagnosis and termination of pregnancy (AbdulAzeez et al. 2019; al-Alaiyan 2014; García, Timmermans and van Leeuwen 2008; Gitsels-van der Wal et al. 2014). Islam offers a distinct view on ethical issues at the beginning of life, including prenatal diagnosis and termination of pregnancy. This view revolves around a particular moment during pregnancy; that is the moment of ensoulment (*naḥkh al-rūḥ*).

According to the Qur’ān (22:5; 23:12–16), the human fetus goes through multiple developmental stages from the moment of conception till birth, during which ensoulment takes place. Muslim scholars unanimously agree that the moment of ensoulment grants the fetus its sanctity and the right to full protection (Rispler-Chaim 1993, 9; Sachedina 2009, 133). The timing of ensoulment, however, has not been specified in the Qur’ān but was provided by Prophet Muḥammad. Based on three Prophetic traditions (*ḥadīths*), ensoulment takes place at forty, forty-two, forty-five, or 120 days after conception (Muslim n.d., *ḥadīth* no. 2644; al-Bukhārī n.d., *ḥadīth* no. 3208; Muslim n.d., *ḥadīth* no. 2643a; Muslim n.d., *ḥadīth* no. 2645a).

The moment of ensoulment determines not only the moral status of the fetus and gives it its absolute value, but more importantly, it sets a reference point for the implementation of the various religious rulings pertaining to the fetus; the most important among which are rulings concerning abortion and termination of pregnancy. The majority of Muslim scholars throughout history have

agreed that abortion is prohibited after ensoulment except to save the mother's health, though they differ on whether this should be after forty or 120 days from conception, as well as whether there should be strong justifications for it (al-Bārr 1989; Atighetchi 2007; Ghaly et al. 2022; Wizārat al-Awqāf 1983, 57; Rispler-Chaim 1993).

The development of prenatal diagnosis technologies has (re)shed the light on the abortion debate. These technologies made the debate even more complicated as they added a new element to it, one which had generally been overlooked; that is, the health of the fetus. Accordingly, and in light of the new discoveries on prenatal health, traditional justifications for abortion had to be reviewed, and attention had to be paid to reasons other than those pertaining only to the – health of the – mother (Sachedina 2009).

This article aims to examine the Islamic methodological approaches that are used to resolve contemporary issues pertaining to prenatal diagnosis and termination of pregnancy due to fetal anomaly. The main question would thus be: *what are the main approaches and methodological characteristics of contemporary Islamic bioethical discourse on prenatal diagnosis and termination of pregnancy?* The objective is, firstly, to understand on which basis the various Islamic views and perspectives were constructed, and to which extent different contexts influence the Islamic biomedical discourse on such issues, and, secondly, to assess the rules and principles that Muslim jurists and scholars apply to arrive at decisions regarding prenatal diagnosis and termination of pregnancy across the different schools of thought.

More often than not, religious positions and perspectives are taken for granted; accepted and endorsed as they are. The methodologies that were used to arrive at these positions are often overlooked. This analysis stresses the fact that it is not only important to understand the various Islamic perspectives on a given ethical issue, but it is also important to understand why and how these perspectives were constructed. This analysis may thus be considered as an attempt at providing clarity on how Islamic perspectives regarding prenatal diagnosis and termination of anomalous fetuses were developed. Understanding the reasoning (*illa*; *manāt*) behind these perspectives would help with developing new perspectives in light of new technologies in fetal healthcare as they emerge, based on solid foundations, while remaining faithful to the main Islamic rules and principles. It would also help in identifying the strengths and weaknesses of contemporary Islamic ethical approaches to prenatal diagnosis and termination of pregnancy, in order to address existing gaps and develop more thorough approaches.

2 Methodology

This article presents a methodological analysis of contemporary Islamic bioethical discourse on prenatal diagnosis and termination of pregnancy due to fetal anomaly. It provides a description of the existing Islamic perspectives and debates on prenatal diagnosis and termination of pregnancy due to fetal anomaly as well as analytical insights into these perspectives and debates. For the purposes of this article, a scoping literature review was conducted on available theoretical and empirical literature in English and Arabic on Islamic ethical perspectives on prenatal diagnosis and termination of pregnancy due to fetal anomaly. Scoping literature reviews aim to identify available literature on an emerging topic, map and clarify key concepts that underpin the topic, examine how existing research about the topic has been conducted, and identify the topic's main characteristics and gaps (Munn et al. 2018; Peters et al. 2015).

Databases such as Limo, JSTOR, PubMed, Google Scholar, and IMSE were consulted, but, due to scarcity, a substantial number of sources were identified through manual searching and the review of reference lists. Keywords guiding the search included the following terms: beginning of life, antenatal, prenatal, diagnosis/screening, termination of pregnancy, abortion, therapeutic/medical abortion, NIPT, foetal/fetal anomaly*, congenital anomaly*, abnormality*, malformation, genetic disorder, and *ijhād* (abortion). Those terms were crossed with: Islam*, Muslim*, religion*, ethics*, Islamic law, *fatwā*, and *fiqh*. The search yielded 18 sources; among which are 1 book, 9 journal articles, 3 of which are empirical studies (2 qualitative and 1 quantitative), 7 legal rulings and resolutions (*fatwās*), and 1 conference paper. Primary sources, including the Qur'an and Sunna, and major *fiqh* encyclopedias, were also consulted.

A methodological analysis of the identified literature was then conducted to a) examine the methods that were used to resolve ethical issues pertaining to prenatal diagnosis and termination of pregnancy due to fetal anomaly, and b) determine the methodological characteristics of contemporary Islamic bioethical discourse on prenatal diagnosis and termination of pregnancy due to fetal anomaly. Key concepts and principles within Islamic theology, law, and ethics were explored.

The detailed discussion on the content of the identified literature was described in great detail in a separate manuscript that is currently under review. This article aims at providing a methodological, rather than content-based, analysis. Briefly, however, the identified literature could be seen as falling under two categories; normative Islamic literature, and literature that addresses the

views of Muslims. Normative Islamic literature is concerned with the study of scriptural texts, Islamic doctrines, and the religious rules that are produced based on the scriptural texts by the different doctrines. This literature argues about what should be done from an Islamic viewpoint regarding prenatal diagnosis and termination of pregnancy in the case of fetal anomaly and includes the *fatwās* and resolutions produced by individual scholars as well as religious councils. Interestingly, some of this literature is produced by Muslim physicians who are knowledgeable about religion, where they present detailed and accurate accounts due to the medical knowledge they possess in addition to the religious one (cf. al-Bārr 1989). Whereas the second type of literature involves human actors who are engaged in various ways with the Islamic point of view (such as Muslim pregnant women, Muslim parents of disabled children, midwives, genetic counselors, etc.). It includes the sociological and anthropological study of Muslims regarding prenatal diagnosis and termination of pregnancy conducted in both Muslim minority and majority countries (cf. Gitsels-van der Wal et al. 2014; 2015; Alsulaiman et al. 2013).

The scoping review revealed a clear paucity of literature addressing the ethical issues regarding prenatal diagnosis and termination of pregnancy from an Islamic perspective. The majority of sources either focus on experiences of, and attitudes towards, prenatal diagnosis and termination of pregnancy, or replicate the legal stances produced by religious scholars and/or councils. A critical in-depth Islamic ethical analysis on prenatal diagnosis and termination of pregnancy hardly exists. Hence, the analysis presented in this article is necessary to fill the current gaps in the literature.

Building on decades of Islamic scholarship, and due to the inevitable link between the topic of termination of pregnancy due to fetal anomaly and abortion, we start this methodological analysis by examining early ethical approaches to abortion among Muslim jurists of the different schools of thought. The aim is to understand for which reasons abortion was permitted and to assess – at a later stage – how fetal anomalies are considered in justifying the termination of pregnancy. We then analyze contemporary bioethical approaches to prenatal diagnosis and termination of pregnancy and examine the main principles that are applied to justify pregnancy termination in the case of fetal anomaly. Finally, we reflect on the existing Islamic bioethical approaches to prenatal diagnosis and termination of pregnancy and put them in dialogue with approaches and principles derived from western biomedical ethics. The idea is to examine how the existing approaches may be used for the development of a framework that respects Islamic principles, medical realities, and decades of ethical scholarship. We conclude by stressing the importance of understanding the Islamic approaches to biomedical issues on

prenatal diagnosis and termination of pregnancy in advancing antenatal care for Muslim patients.

3 Results

3.1 *Protecting Human Life: A Starting Point*

The concept of protecting human life (*hifẓ al-nafs*) represents the starting point from which every ethical discourse on abortion is constructed. Protecting human life is one of the five higher objectives of Islamic law (*maqāṣid al-sharī'a*), hence it is of utmost necessity that life is preserved by all possible means (al-Bar and Chamsi-Pasha 2015). In the case of pregnancy, the question that religious scholars were confronted with was: whose life should be protected, and when? Generally speaking, Islamic law (*sharī'a*) prioritizes the life of the mother over that of the fetus. This is because the mother's life is the established life upon which the survival of the fetus relies (al-Bārr 1989; Wizārat al-Awqāf 1983; Sachedina 2009). Therefore, and according to the principle of necessity (*darūra*),¹ scholars agree on the permissibility of abortion when the mother's life is threatened by the pregnancy (al-Bārr 1989; Rispler-Chaim 1993, 12). However, when there is no danger to the mother's life, the question becomes about whether the life of the fetus also falls under the obligation to protect human life, or in other words, at which point during pregnancy it becomes categorically necessary to protect the fetus's life. When is the life of the fetus considered human life? When does human life begin?

The Islamic ethical debate on abortion is, thus, not a debate on the value of human life per se, rather it is a debate on when this life becomes sacred, and by extension, protected. Religious scholars do not deny that the fetus's life begins in a biological sense starting from the moment of conception. Although, they do dispute the moral status that this life holds (Sachedina 2009, 126). Against this backdrop, the moment of ensoulment played a significant role in shaping the abortion debate (at least from the third/ninth century onwards).²

1 The principle of necessity (*darūra*) aims to preserve the five main objectives of *sharī'a*, it, therefore, allows for actions that would otherwise be prohibited as long as a necessity exists, based on the *fiqhī* rule: necessity dictates exceptions (al-Qaradawi 2001).

2 In very early Islamic jurisprudence, the issue of personhood was identified through the bodily figure of the fetus after an abortion or a miscarriage, i.e., whether the fetus has started to take a human shape. This was expressed through what was called the process of "animation" (*takhalluq*). Animation was associated with ensoulment based on the Qur'ānic embryology described in Q 23:16, more particularly the term *khalqan ākhar*, that was unanimously understood to be referring to the moment of ensoulment (Eich 2009; Katz 2003).

It identified two fetal phases; one without a soul, which was in many cases compared to the life of an animal or a plant (al-Bārr 1989; Atighetchi 2007), and one with a soul, which is perceived to give the fetus the status of a human person worthy of absolute protection (Atighetchi 2007, 93; Sachedina 2009, 133).

3.2 *The Early Abortion Debate*

The early Islamic debate on abortion provides an example of how the assessment of an ethical issue evolves (Eich 2009). In fact, this debate is still evolving in contemporary ethics as new information and different circumstances emerge (as we shall discuss later). The above cited Qur'ānic passages and *ḥadīths* were central to the debate; they formed the legal understanding of conception, embryology, and creation (Eich 2009; Katz 2003). The debate was also influenced by medical information, which may reflect the influence of the Greek tradition, especially with regard to abortifacient substances (Eich 2009).

The Ḥanafī and the Mālikī schools of law represent the two extreme poles of this debate. The Ḥanafīs were the most lenient with regard to abortion. They permitted abortion up to 120 days after conception. While it is widely believed that the Ḥanafīs permitted abortion unreservedly, the truth is that the majority of Ḥanafīs specified that abortion is only permitted when there is a valid justification for it (Wizārat al-Awqāf 1983, 58). A minority permitted abortion without justification and even without the father's permission, as long as it is performed within 120 days (Wizārat al-Awqāf 1983, 57; Stodolsky and Padela 2021). For Ḥanafīs, it is the body-soul combination that qualifies one's humanity and sets them apart from animals; accordingly, Ḥanafīs argued that ensoulment is the point that categorically differentiates the fetus as a human person, so abortion becomes prohibited only after ensoulment (Eich 2009).

Interestingly, the Ḥanafīs introduced a unique and previously unprecedented justification for abortion; they permitted aborting a new pregnancy if the prospective parents already had a suckling infant, for whom they are unable to afford a wet nurse, and whose survival would therefore be in danger if its mother's milk stopped due to the new pregnancy (Atighetchi 2007, 95; Wizārat al-Awqāf 1983, 58; Stodolsky and Padela 2021). Also, the available medical information at that time held that the new pregnancy would absorb the nutrients from the mother's body and that the suckling infant will be deprived of necessary nutrients. In such case, the life of the existing infant has priority over the life of the unborn fetus, hence abortion would be justified (Haidar et al. 2015). Here, and for the first time, abortion was considered for a reason other than the health of the mother. This reason, however, may not continue to be valid in contemporary times with the scientific evidence

proving that breastfeeding during pregnancy does not harm the infant (Atighetchi 2007, 98–99).

The Mālikī school of law, by contrast, was the most strict about abortion. The majority of adherents did not permit abortion even in the first forty days of pregnancy. A minority, however, tolerated abortion before forty days, but to them, abortion would still be reprehensible (Atighetchi 2007, 97; Eich 2021; Wizārat al-Awqāf 1983, 57–58; Rispler-Chaim 1993, 11). The reason for this strictness derives from their understanding of the fetus as “a creature waiting to receive its soul from God” (Atighetchi 2007, 97), and, therefore, cannot be manipulated. The fetus was seen as a seed or “a fruit of the womb” that should be preserved once it has settled in the uterus (Eich 2021; Rispler-Chaim 1993). By this, the Mālikīs focused on the potential of the fetus’s life to be accorded the status of a human person after ensoulment, not on the incident of ensoulment itself. Moreover, the Mālikīs argued that the human shape is not essential for establishing the legal position of abortion. Hence, they argued for the fetus’s legal relevance from the moment of conception and prohibited abortion from a very early stage in pregnancy (Eich 2009; 2021).

Between the two poles of the Ḥanafīs and the Mālikīs lie the Ḥanbalī and the Shāfi‘ī schools of law, with a diversity of opinions even within the one school. Nonetheless, both schools stipulate valid justifications for abortion, the most accepted among which is to save the mother’s health. The majority of Ḥanbalīs permitted abortion only during the first stage of pregnancy, i.e., the *nutfā* stage (up to forty days), and based their argument on the idea that a *nutfā* is soulless and is not yet coagulated. Unlike the *‘alaqa*, which marks the beginning of fetal life in their view (al-Khatib 2021). Ibn ‘Aqīl (d. 513/1119) explains that a fetus without a soul will not be resurrected on the day of judgment, therefore, aborting it would not be prohibited (Wizārat al-Awqāf 1983, 58). For the Ḥanbalīs, soul and life are not associated; the fetus is thus seen as a plant that is nourished from the moment of conception, but only through ensoulment that it gains its motion and will (al-Khatib 2021). The opinions of the Shāfi‘ī school, however, varied widely. The majority of adherents permitted abortion up to forty or forty-two days – especially if the pregnancy was conceived through adultery or rape. Some of them permitted abortion up to 120 days, and some did not permit it at all (al-Bar 2021; Atighetchi 2007, 96; Wizārat al-Awqāf 1983, 57–59; al-Awqāf al-Miṣriyya 1966; Rispler-Chaim 1993, 11). Shāfi‘īs based their argument on the idea of animation or organogenesis (*takhalluq*) and allowed aborting the fetus that does not show any signs of *takhalluq* such as eyes, fingers, and organs. *Takhalluq*, to Shāfi‘īs, occurs during the *‘alaqa* stage (between forty-one and eighty days from conception) (al-Bar 2021). Among those who

prohibited abortion is the prominent Shāfi'i scholar al-Ghazālī (d. 505/1111), who provided an interesting synthesis on fetal developmental stages and the religious ruling (*ḥukm*) on abortion. He introduced a gradualist approach to the fetus, whereby the gravity of the act of abortion progressively worsens as the fetus grows, so the interruption of the fetal growth by abortion grades from an offense when performed in the early stages, to a crime later on, up to murder in the case of a baby that has been born (Atighetchi 2007, 96; al-Awqāf al-Miṣriyya 1966–; Sachedina 2009, 134).

The Shī'i school of thought, however, seems to have taken a similar stance as that of the Mālikīs, where the majority of adherents tended to prohibit abortion at any stage during pregnancy (Atighetchi 2007, 97; Bagheri and Afshar 2011; Sachedina 2009, 134), apart from the Zaydīs who permitted abortion before ensoulment (during *nutfa*, *'alaqa*, and *mudgha* stages) up to 120 days. The Zaydīs perceived the fetus before ensoulment as an inanimate object (*jamād*), and only through ensoulment does it become alive. To them the fetus has no sanctity before ensoulment, therefore it can be aborted (Atighetchi 2007, 97; al-Awqāf al-Miṣriyya 1966).

Finally, it is worthwhile mentioning that early Muslim jurists did not only debate the judicial ruling (*al-ḥukm al-fiqhī*) of abortion, but they also debated the monetary fine related to it. This fine (*ghurra*), was set by Prophet Muḥammad after a scuffle between two women that caused one of them to miscarry (Wizārat al-Awqāf 1983, 59). The jurists debated whether this punishment is linked to the moral status of the fetus (usually identified through animation) and whether *ghurra* has to be paid in the case of the non-animated fetus before ensoulment. The details of this debate fall outside the scope of this article, though what is important here is to note that, in general, jurists seemed to impose a lesser or no fine in the case of the non-animated fetus before ensoulment (Atighetchi 2007; Katz 2003; Wizārat al-Awqāf 1983, 59–61). This shows, once again, the centrality of the moment of ensoulment in all aspects of the abortion debate.

3.3 *Prenatal Diagnosis and Termination of Pregnancy in Contemporary Fatwās: Changing Realities*

Clearly, attention to the health of the fetus was completely excluded from any discussion on abortion in early Islamic jurisprudence. This is evidently due to a lack of information about the fetus, and uncertainty in recognizing fetal health defects before birth (al-Matary and Ali 2014; Sachedina 2009).³ The

3 It is important to stress that the availability of information about the fetus's health, or lack thereof, did not impact religious scholars' views on the timing of ensoulment. The scholars' views on the timing of ensoulment were mainly shaped by scriptural sources, i.e., *ḥadīths*.

introduction of prenatal diagnosis technologies in the late 1950s (Levy and Stosic 2019), made the previously lacking information available, and, more so, certain. So, early judicial justifications for abortion had to be reviewed, as was the question of whether a confirmed presence of fetal anomaly would be considered a “valid justification” for abortion.

Contemporary scholars who had to consider this question could only do so with the help of medical professionals, who provide an explanation of necessary medical information, in a process called collective legal reasoning (*ijtihād jamāʿī*). This form of *ijtihād* is a main characteristic of contemporary legal reasoning on bioethical issues, where up-to-date scientific knowledge becomes essential in the *ijtihād* process (Ghaly 2012). Against this backdrop, and in light of medical advancements in fetal imaging and prenatal diagnosis, the Islamic Fiqh Council (IFC) in Mecca issued an important *fatwā* that paid particular attention to fetal health and related anomalies. The *fatwā* states that abortion is permissible before the lapse of 120 days from the moment of conception if the fetus is severely malformed with an untreatable condition that will be present at birth and will cause pain and suffering for the child and their family. This has to be proven by a committee of competent and trustworthy physicians, based on clinical examinations and laboratory findings, following the request of both parents. Termination of pregnancy after 120 days remains impermissible even if the fetus is malformed unless it is proven by the committee that the continuation of the pregnancy will cause definite danger to the mother’s life (IFC 1990).

This *fatwā* was widely cited and endorsed by contemporary jurists and Islamic *fiqh* institutions, such as the Islamic Medical Association of North America (IMANA Ethics Committee 2005), the European Council for Fatwa and Research (ECFR 2018), the *muftī* of Egypt (Jumuʿa 2012), and others. The significance of this *fatwā* is threefold. First, it created a major shift in abortion *fatwās* by considering fetal anomalies for the first time (Haidar et al. 2015). Second, it provided a “relaxed” approach towards abortion in the case of fetal anomalies, by realizing that a forty-day approach would be, in many cases,⁴ pointless and medically impractical, as it is almost impossible to ascertain fetal anomalies during that period (Albar 2002; Rispler-Chaim 1999). Third, this *fatwā* focused not only on the importance of protecting human life, but also on the quality of that life, and the suffering of the mother and child that the fetus will eventually become.

4 A forty-day approach to abortion may only work for families aware of their genetic risks and undergo preimplantation genetic diagnosis (PGD), or prenatal screening very early in pregnancy. However, it certainly does not work for families unaware of their risks, those who are not at high risk, or those who do not suspect any risk.

A similar – significant – religious opinion was also issued by the Iranian head of judiciary and was legalized by the parliament in 2005. This so-called “Single Article Act on Therapeutic Abortion” permitted abortion for 51 fetal and maternal conditions before 19 weeks of gestation.⁵ Permission from the Legal Medicine Organization and the consent of the pregnant woman must be obtained for abortion, after a definitive diagnosis of a life-threatening maternal disease or a profound fetal anomaly (developmental or physical) that will cause extreme suffering for the child and their mother. The diagnosis must be made by at least three medical experts (Hedayat, Shooshtarzadeh, and Raza 2006; Mahdavi et al. 2020).

3.3.1 Justifying Principles: *Uṣūl al-Fiqh*

While terminating pregnancy to save the mother’s life is ethically justified based on the principle of necessity (*ḍarūra*), terminating anomalous fetuses was justified based on the principles of no harm (*lā ḍarar*), and no hardship (*lā ḥaraj*). Referring to the Qur’anic verse 2:233 “... No one should be burdened with more than they can bear. No mother should be harmed through her child, and no father through his child ...”⁶ scholars have concluded that terminating the “severely malformed” fetuses is permissible considering the extreme hardship and suffering of the affected children and their parents (al-Matary and Ali 2014; Haidar et al. 2015; Sachedina 2009). The issue of hardship was explicitly mentioned in the IFC *fatwā* as well as the Iranian Act on Therapeutic Abortion. Haidar et al. (2015) explain that “the high costs of treatment for affected children, and the burden these costs constitute for the health care system and individual families who live in poverty, have been driving forces behind the recent tendency to allow early abortion in cases of severe fetal conditions” (Haidar et al. 2015, 97).

Terminating anomalous fetuses is seen as the lesser of the two evils (*akḥaff al-ḍararayn*); a well-established ethical principle in Islamic *fiqh* (Haidar et al. 2015). When weighing the benefits and the harms of such an ethical issue, a very relevant *fiqhī* rule dictates that preventing harm has preponderance over advancing benefit (*daf‘ al-ḍarar awlā min jalb al-maṣlaḥa*) (Sachedina 2009, 135). Considering that the foreseen disability and continuous suffering of the

5 Gestational age is counted from the pregnant woman’s first day of the last menstrual cycle. Religious scholars, however, count the fetal age starting from the moment of conception. Conception usually takes place on days 14–16 of the menstrual cycle. Therefore, there is about a two-week difference between gestational age and fetal age (fetal age of 120 days from conception = gestational age of 134 days from the last menstrual period = 19 weeks and one-day gestation).

6 For the translation of this verse, we used the translation of al-Mehri (2017).

expected child is the harm to be prevented. To that end, prenatal diagnosis and termination of pregnancy due to fetal anomaly “can be expected to result in a greater balance of benefits over harms for the child or person the fetus can later become” (al-Alaiyan 2014, 2).

3.3.2 Conditions: Representing Religious Provisions Based on Medical Data

Several conditions need to be fulfilled in order to legally and ethically justify the termination of pregnancy due to fetal anomaly. These conditions are deduced from the framing of the abovementioned IFC *fatwā* (upon which almost all other *fatwās* rely), and are categorized as follows: certainty of diagnosis, method of diagnosis, timing of diagnosis, and anomaly type. First, the diagnosis of a fetal anomaly must be confirmed with complete certainty (*yaqīn*) by a committee of competent trustworthy physicians.⁷ This leads to the second condition on the method of diagnosis. The *fatwā* states that the diagnosis should be concluded based on clinical examinations and laboratory findings, both confirming the presence of the anomaly. Here comes the role of prenatal diagnosis methods, hence, some elaboration on those methods is due.

Prenatal diagnosis comprises several tests performed at different stages during pregnancy. A distinction has been made between non-invasive prenatal screening and invasive prenatal diagnostic procedures. Non-invasive screening includes maternal blood tests, ultrasound, and non-invasive prenatal testing (NIPT) using cell-free DNA found in maternal blood. NIPT offers early screening for the most common chromosomal abnormalities, such as trisomy 13, 18, 21 (Down syndrome), and X/Y syndromes (Levy and Stosic 2019; Strom 2022). The main advantage of NIPT is its ability to detect several disorders as early as nine weeks of gestation, with a quite high level of accuracy, and without the risk of miscarriage usually associated with invasive procedures. However, to date, invasive tests are still required to confirm the results of NIPT⁸ (Hui 2019; Shulman, Dungan, and Wagner 2022).

Invasive diagnostic tests, however, can identify nearly all known genetic conditions, and are performed at a later stage in the pregnancy; usually during the second trimester (between 12–21 weeks of gestation). Invasive procedures

7 In some *fatwās*, the number of physicians was specified by minimum three, e.g., *fatwā* no. 240 by Saudi Council of Senior Scholars and the Iranian Single Article Act on Therapeutic Abortion (al-Alaiyan 2014; Mahdavi et al. 2020).

8 In the near future, invasive testing may be completely replaced by non-invasive prenatal diagnosis (NIPD), through the so-called next generation DNA sequencing. NIPD does not require the confirmation of invasive procedures, or direct access to the uterus (Hui 2019).

include chorionic villus sampling (CVS) (at 10–13 weeks), fetoscopy, amniocentesis (15–17 weeks), and percutaneous umbilical blood sampling (PUBS) (18–20 weeks) (Levy and Stosic 2019; Shulman, Dungan, and Wagner 2022).

Providing accurate information about the presence and the type of the fetal anomaly is of vital importance in order not to risk ending a life based on an incorrect diagnosis. Prenatal diagnosis offers the required level of certainty, but the timing of this diagnosis is of even greater importance.

Therefore, and as a third condition, the diagnosis of a fetal anomaly needs to be confirmed as early as possible (e.g., before 18 weeks of gestation), to allow Muslim families to consider all possible options, including pregnancy termination, before ensoulment (i.e., 19 weeks gestation) (Haidar et al. 2015). Medically speaking, and as mentioned before, NIPT can offer highly accurate information well in advance of the 19-week time limit. However, confirmatory invasive diagnostic procedures, such as the commonly performed amniocentesis, are performed about five weeks later – or more, which is at borderline with the 19-week gestation time limit. Despite the fact that it is – theoretically – possible to arrive to a diagnosis within the 19-week time limit, in practice, this is a major challenge for Muslim families. Late referrals and delayed diagnoses seem to be major obstacles in antenatal care for Muslims (al-Matary and Ali 2014; Shoham-Vardi et al. 2004). For example, in some countries, such as The Netherlands, second-trimester ultrasound is performed at 20 weeks gestation, and confirmatory amniocentesis is performed afterward, whereas pregnancy termination is legally allowed until 24 weeks gestation (Gitsels-van der Wal et al. 2014; 2015). Such a reality proves too late for Muslim families who wish to terminate the anomalous fetus. Therefore, it should be taken into account that diagnostic results need to be available at a gestational age that allows the option of pregnancy termination when an anomaly is detected. On average, it takes 2–3 weeks after sample collection to process results and confirm diagnoses (Shulman, Dungan, and Wagner 2022).

Fourth, the diagnosis should either confirm the certain death of the baby within a short period after their birth, or the presence of an anomaly that will result in the suffering of the child and their family members (Sasongko et al. 2010). Religious scholars have categorized fetal anomalies into four groups: simple, treatable, dangerous, and untreatable. Among the first two groups are anomalies that can be treated during pregnancy, and anomalies that can be treated immediately after birth, or at a later point, either by surgery or through a special diet or medicine. Those types of anomalies do not justify the termination of a pregnancy. The last two groups, however, do justify the termination of the pregnancy due to their gravity and intractability (such as Spina Bifida, Open Neural Tube, and Cystic Fibrosis) (al-Bārr 1989; Ibn al-Khūja 1989).

In such cases, termination of pregnancy is permitted before 120 days from conception. Notably, the *fatwā* explicitly states that the untreatable anomaly must be present at birth to justify the termination. In fact, one of the most controversial and unresolved issues in this regard is the issue of terminating a pregnancy for late-onset diseases (Haidar et al. 2015).

Finally, should termination be chosen after the fulfillment of all these conditions, it should be requested by both parents, and performed before the lapse of 120 days (IFC 1990; Sasongko et al. 2010).

4 Discussion

4.1 *Theological Dimensions to Prenatal Diagnosis and Termination of Pregnancy: Shortcomings of Contemporary Islamic Ethical Discourse*

Prenatal diagnosis does not only impose ethical questions but also theological ones. The diagnosis of a fetal anomaly, which would lead to a lifelong disability and suffering, opens the discussion on God's will and predestination. On the one hand, any hardship (*balā'*) or difficulty one goes through seems to have a spiritual dimension or a purifying function; a dimension that is broader than what is perceived to be a mere misfortune, but rather a test for one's faith and patience that leads to the expiation of sins and elevation on the spiritual path.⁹ Deformities and disabilities are inarguably among the most difficult of hardships.¹⁰ The theological term *ahl al-balā'* (people who go through hardship) seem to have been used mainly for disabled people in Islamic theology, despite its potential applicability to a broader cohort of the population. Theological discussions on disability also extended to the so-called issue of theodicy (*ta'līl*), where early Muslim theologians tried to tackle the ontological question about the very existence of disability in light of believing in an ultimately merciful and just God (Ghaly 2016).

On the other hand, Islam views disability as neither a curse nor a blessing, but simply a human condition (Ghaly 2016). However, despite this view,

9 This idea is based on an authentic Prophetic tradition that reads: "Never a believer is stricken with a discomfort, an illness, an anxiety, a grief or mental worry or even the pricking of a thorn but Allah will expiate his sins on account of his patience" (al-Bukhārī n.d. *ḥadīth* no. 5641, 5642; Muslim n.d. *ḥadīth* no. 2573; al-Nawawī n.d., *ḥadīth* no. 37).

10 Anomalies that cause mental and cognitive disabilities open up an even more extensive theological discussion on the divine wisdom of inflicting pain and hardship on non-accountable people (*ghayr mukallaf*) who do not enjoy legal liability (*fāqid al-ahliyya*).

Muslims' impressions and attitudes towards fetal anomalies and disabled children are strongly linked to the will of God (Bryant et al. 2011). Terminating a pregnancy due to a confirmed diagnosis of an anomaly, may thus be perceived as interfering with God's will or "playing God," for God alone is the giver and taker of life, and it is only through His wisdom that the purpose of each life can be comprehended (Ghaly 2008; Rispler-Chaim 1999).

These theological dimensions seem to have been the reason for jurists' reluctance to permit the termination of pregnancy for fetal anomaly, despite their sympathy with human suffering (Rispler-Chaim 1999). However, and somewhat contradictorily, such theological reflection is remarkably lacking in contemporary Islamic ethical discourse on prenatal diagnosis and termination of pregnancy, where attention is hardly paid to disability and its theological, ethical, and practical dimensions. The depth of analysis presented in early Islamic ethical discourse is, unfortunately, missing from contemporary Islamic (bio)ethical discourse. The problem, as Abdulaziz Sachedina (2009) explains, is due to a reduction of bioethical issues – at the beginning of life – to the field of *fiqh*, where Islamic theological ethics are overlooked and where the ethical analysis is only based on legal principles, without articulating ethical codes. Javad Hashmi (2021) also argues that this "overemphasis on a law-based approach" and "disproportionate focus on the legal paradigm" has led to a "failure to appreciate the internal diversity of Islam" (Hashmi 2021, 290) in the field of Islamic bioethics.

This is a major shortcoming of the contemporary Islamic discourse on prenatal diagnosis and termination of pregnancy. Yet, the theological dimension does not seem to be the only one missing from the discussion, *maqāṣid al-sharī'a*, nevertheless, seem to be completely absent from the discourse, even though *ḥifẓ al-nafs* was the starting point of the early legal discussion on abortion.

4.2 *Need for More Thorough Islamic Bioethical Approaches to Prenatal Diagnosis and Termination of Pregnancy*

Contemporary Islamic discourse on the beginning of life is more concerned with preventing genetic anomalies from happening, rather than preventing anomalous fetuses from being born (Rispler-Chaim 1999). Islamic teachings indeed offer a wide variety of preventive recommendations surrounding marriage and reproduction, and encourage research that prevents the transmission of hereditary diseases to future generations (Albar 2002; Ghaly 2008). Still, and despite these recommendations, high consanguineous marriage rates – often associated with a higher risk of fetal anomalies – exist among

Muslim communities (AbdulAzeez et al. 2019), which means that a more thorough approach to fetal anomalies is needed in Islamic bioethics.

Advancements in prenatal diagnosis, prenatal testing, and particularly NIPT, have the potential to change the paradigm of ethical decision-making regarding prenatal diagnosis and termination of pregnancy in the Islamic context (Haidar et al. 2015). These advancements provide possibilities that respect the framework set by the moment of ensoulment (through early testing and diagnosis). They also help in the development of nuanced Islamic ethical approaches to prenatal diagnosis, particularly by providing accurate information as to the type and severity of anomalies. However, these advancements impose additional dilemmas about what may constitute a defect that justifies the termination of pregnancy (Sachedina 2009, 141).

In Islam, it is not evident that every anomalous fetus should be terminated. This is more linked to the ethical question of whether all people should be healthy (Rispler-Chaim 1999), though once termination is considered, the question of *where to draw the line* becomes of vital importance. Some types of anomalies, however, are explicitly excluded from the discussion, such as deafness and blindness with which, argue al-Qaraḍāwī (d. 2022) and the former grand *imām* of al-Azhar Jād al-Ḥaqq (d. 1996), many people can lead an active and good life (Ghaly 2008; Rispler-Chaim 1993, 15). In fact, jurists associated life with the concept of dignity rather than the concept of happiness. Therefore, some scholars, including the former grand *imām* of al-Azhar Maḥmūd Shaltūt (d. 1963), argued that a disabled person might be totally happy with their life and that the assumed happiness, or lack thereof, seems to be projected upon them by those without disabilities (Rispler-Chaim 1999).

The concept of dignity appears to be highly relevant to contemporary *fatwās* on termination of pregnancy due to fetal anomaly. These *fatwās* permit the termination of the “severely malformed” fetuses who will experience “extreme” suffering if born. It is reasonable to assume, then, that living with severe malformations would be far from dignified. The problem, nevertheless, is that those *fatwās* are not clear about what is a “severe” anomaly, or how it ought to be defined (Ahaddour 2021; Ghaly et al. 2022). Additionally, most of the *fatwās* do not address the case of fetal incompatibility with extrauterine life. Therefore, the permissibility of pregnancy termination due to fetal anomaly is “complicated by the lack of a reliable predictor of seriousness and the fatality of the condition in question” (Sasongko et al. 2010, 427).

This lack of clarity may not only create confusion but also risk being a slippery slope. Yet, it may offer a – necessary – room for interpretation, which can be a blessing for some. So, it is possible that a certain level of vagueness was

intended by the scholars, who wanted to leave room for the consideration of pregnancy termination in cases that may not be clear-cut.

4.3 *Medical Ethics vs. Islamic Ethics in Prenatal Diagnosis and Termination of Pregnancy: Common and Particular Moralities*

The concern about *where to draw the line* seems to be shared by both Muslim scholars and western ethicists (Rispler-Chaim 1999). So is the ambiguity of the definition of a “severe fetal anomaly.” This adds to the need for developing an Islamic approach to defining fetal anomalies that justify pregnancy termination, an approach that is mainly based on an Islamic ethical analysis.

Modern western medical ethics focus primarily on doing what is best for the patient. This is mainly established in the principle of “beneficence.” Beneficence requires the physician to objectively assess the various possible options, and promote the interest of the patient by securing the greatest balance of benefits over harms (Beauchamp 2016). However, in the context of prenatal diagnosis and termination of pregnancy, the question becomes: who is the patient? and whose best interest should be promoted; that of the mother or the fetus?

In medical ethics, the obligation towards the fetus – as a patient – starts from viability,¹¹ which is the point from which the fetus can survive outside the uterus, and is considered to be around 22–23 weeks. It follows that abortion of the viable fetus is ethically unacceptable, except in two well-established cases; the certain death of the fetus in the uterus or a confirmed correct diagnosis of a severe irreversible physical or cognitive anomaly (Chervenak et al. 1984; McCullough, Coverdale, and Chervenak 2020). In the case of the pre-viable fetus, however, it is the woman’s autonomy that provides a link between the fetus and the child this fetus will become (McCullough, Coverdale, and Chervenak 2020). Respect for autonomy is a crucial principle in medical ethics. It is, in practice, a counterbalance to the principle of beneficence, and ensures the patient’s freedom of choice based on their values and beliefs (Beauchamp 2016). In fact, decisions on terminating pre-viable anomalous fetuses are only partly impacted by the fetal health issue, more determinative is parental socio-economic status, level of education, and personal values and beliefs including cultural and religious ones (al-Alaiyan 2014; Alsulaiman and Abu-Amero 2013; Chervenak and McCullough 1991). Hence, the need to respect religious beliefs in antenatal care.

11 The concept of viability is particularly and strongly present in American medical ethics.

Remarkably, there seems to be a great similarity between medical and Islamic ethics with regard to the approaches and principles applied to resolve ethical issues related to the termination of pregnancy due to fetal anomaly. This is evident in multiple ways including applying principles that are shared by the two ethical systems (i.e., beneficence and no harm (*lā ḍarar*)) and requiring a balance of benefits over harms for the child the fetus will later become. Moreover, both systems refer to a particular moment during pregnancy as a framework (viability versus ensoulment), and both dispute the moral status of the fetus before that moment. Strikingly, contemporary Islamic ethical discourse on prenatal diagnosis and termination of pregnancy does not refer to medical ethics despite this considerable similarity. This is due to the degree to which the ethical principles – upon which the ethical analysis on termination of pregnancy was constructed – are embedded in Islamic jurisprudence, and to the centrality of the moment of ensoulment in Islamic thought, to the extent that it seemed that Islamic ethics did not necessarily need to draw on western medical ethics to construct its ethical view.

The founders of the principles-approach to biomedical ethics, Tom Beauchamp and James Childress argue that an important part of the principles-approach is its “common morality,” which means that the principles were drawn from “universal moral norms shared by all persons committed to a moral life” (Beauchamp 2016, 104). Although, Beauchamp further adds that these universal norms – in the common morality – are starting points that can be developed and specified. This is the role of what he calls “particular moralities,” which present, in addition to universal norms, concrete and rich norms. Particular moralities, such as religious moralities, “share the common morality, but they do not share whatever makes each one distinctively the religious group it is ... The common morality – being general and only general – does not have and cannot have the same richness and specificity that a particular morality does” (Beauchamp 2016, 111–112).

Building on this, we argue for the importance of considering the Islamic ethical approaches to prenatal diagnosis and termination of pregnancy in antenatal care, as well as for the integration of these approaches in counseling Muslim patients faced with dilemmas related to fetal anomalies and termination of pregnancy. We also argue for the need to develop more thorough Islamic ethical approaches to prenatal diagnosis and termination of pregnancy, and for the development of an ethical framework that is based on theoretical and empirical research, and that is faithful to the Islamic sources, values, and Muslims’ lived experiences (Ahaddour 2021).

5 Conclusion

In light of recent medical advancements in prenatal diagnosis, traditional justifications for abortion had to be reviewed. The majority of contemporary jurists concluded that the termination of severely malformed fetuses is allowed before the lapse of 120 days (i.e., before ensoulment). This has created a major shift in abortion *fatwās* because fetal health was considered for abortion for the first time.

Termination of anomalous fetuses is justified based on the principle of no harm, and is considered to be the lesser of the two evils. Contemporary Islamic ethical discourse on prenatal diagnosis and termination of pregnancy, however, seems to be lacking clarity on what constitutes a malformation that justifies the termination of a pregnancy, or how a severe malformation may be defined. There seems to be a considerable reliance on early abortion *fatwās*, as well as a general hesitancy to consider post-ensoulment termination of pregnancy, at least in futile cases when extrauterine death is confirmed. Contemporary Islamic ethical discourse also seems to be lacking attention to ethical dimensions other than those rooted in Islamic jurisprudence, such as theological ethics, ethics of disability, and professional ethics. Therefore, more thorough Islamic ethical approaches to prenatal diagnosis and termination of pregnancy are needed.

The novelty of the topic, the constantly changing and advancing medical information, and the lack of in-depth analysis on Islamic ethical perspectives on prenatal diagnosis and termination of pregnancy, are major limitations to this research. Unfortunately, Islamic ethical perspectives on prenatal diagnosis and termination of pregnancy are remarkably understudied. To the best of our knowledge, this is the first methodological analysis to be conducted on the topic.

This methodological analysis aspires to generate further and richer discussion on how to develop thorough ethical approaches to prenatal diagnosis and termination of pregnancy. It also seeks to provide insights for the development of a contextualized ethical framework on prenatal diagnosis and termination of pregnancy for Muslims, to advance more religiously-sensitive antenatal care for Muslim patients.

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