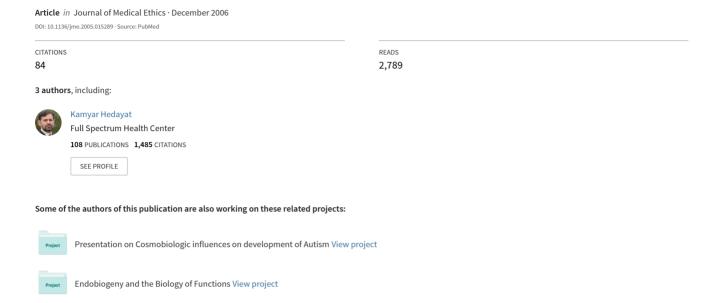
Therapeutic abortion in Islam: Contemporary views of Muslim Shiite scholars and effect of recent Iranian legislation



LAW, ETHICS AND MEDICINE

Therapeutic abortion in Islam: contemporary views of Muslim Shiite scholars and effect of recent Iranian legislation

K M Hedayat, P Shooshtarizadeh, M Raza

J Med Ethics 2006;32:652-657. doi: 10.1136/jme.2005.015289

Abortion is forbidden under normal circumstances by nearly all the major world religions. Traditionally, abortion was not deemed permissible by Muslim scholars. Shiite scholars considered it forbidden after implantation of the fertilised ovum. However, Sunni scholars have held various opinions on the matter, but all agreed that after 4 months gestation abortion was not permitted. In addition, classical Islamic scholarship had only considered threats to maternal health as a reason for therapeutic abortion. Recently, scholars have begun to consider the effect of severe fetal deformities on the mother, the families and society. This has led some scholars to reconsider the prohibition on abortion in limited circumstances. This article reviews the Islamic basis for the prohibition of abortion and the reasons for its justification. Contemporary rulings from leading Shiite scholars and from the Sunni school of thought are presented and reviewed. The status of abortion in Muslim countries is reviewed, with special emphasis on the therapeutic abortion law passed by the Iranian Parliament in 2003. This law approved therapeutic abortion before 16 weeks of gestation under limited circumstances, including medical conditions related to fetal and maternal health. Recent measures in Iran provide an opportunity for the Muslim scholars in other countries to review their traditional stance on abortion.

See end of article for authors' affiliations

Correspondence to: M Raza, Department of Physiology, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran; mohsinrazahej@yahoo. com

Received 21 November 2005 Revised 17 January 2006 Accepted 9 February 2006

ll the major world religions consider life to be sacred, beginning with concerned ending with death. Islam is no exception has been be sacred, beginning with conception and in this matter. Traditionally, abortion has been considered to be absolutely forbidden or to be treated with strong disdain and limited to certain circumstances. The Catholic church does not allow abortion under any circumstances. However, abortion is not considered to be morally objectionable when the treatment given to save the life of the mother results in an abortion.1 The Protestant viewpoint is heterogeneous with evangelical sects opposing abortion and more liberal ones allowing it.2 Buddhists also oppose abortion, although there is no official stance but rather a general opposition to harming any life.3 Judaism allows abortion when the life of the mother is threatened,4 but otherwise considers it to be forbidden.5

Islam is unique among world religions in that the embryological development of humans has been extensively discussed and described in the divine scripture, the Quran, and commented on in detail by Prophet Muhammad and the Imams, exemplary teachers who are descendents of Prophet Muhammad. Islam is a codified religion, the basis of which is derived from the Quran and the records of Prophet Muhammad's sayings (hadith) and rulings (fatwas) as judge and head of the city-state of Medina, in the Arabian Peninsula. Muslim jurisprudents continued, throughout the ages, to derive rules and methods of deducing new rulings as new issues arose. This allowed Islamic law to be flexible in its application and accommodating towards certain local customs and needs. The issue of non-therapeutic and therapeutic abortion is no exception.

The prevalent and widespread practice of abortion in nearly all industrialised countries and many developing countries has been equated with the "culture of death". The estimated rates of abortion in the industrialised world include Russia (58.2%), China (27.1%), Sweden (25.7%), New Zealand (24.8%), the US (24.3%), Canada (24.2%), Japan (22.2%), Australia (22.5%), the UK (21.8%), France (21.3%) and Italy (19.1%). Additionally, in Vietnam and Cuba, abortions occur at nearly 2–3 times the world average rate of abortion for every 1000 women of childbearing age. Asia accounts for 50% of the world's population, but 60% of all abortions.

In developing countries, undeniable pressures owing to limited economies and burgeoning populations have contributed considerably to the wanton taking of human life. Along with this are the increased social services, housing and healthcare needs, employment needs and, finally, social security and retirement needs. Abortion has become a reality, often carried out in unsanitary conditions, with great risk to the life of the mother and without the knowledge of the immediate family members or consent of the father of the child.

This article presents an overview of the concept of abortion in Islam by examining the source material of Quranic verses and hadithes, mainly from the Shiite point of view. It presents contemporary rulings of Shiite jurisprudents on abortion and concludes with a case study of the recent parliamentary laws passed in the Islamic Republic of Iran, which allow therapeutic as well as non-therapeutic abortions during the first 4 months of gestation, under certain circumstances. Iran is the only Islamic Republic whose

legal system is founded solely on Shiite Islamic law or shari'a, but which also allows democratic representation. This article also considers some of the reasons behind recent changes in Iran's legal system with regard to abortion. For the sake of definition, therapeutic abortions are defined as "those recommended by the healthcare provider to protect the mother's physical or mental health".¹⁰

SHIITE SCHOLARS AND SOURCES OF ISLAMIC RULINGS

The Shiites, unlike the Sunni Muslims, have a series of scholars, Ayatollahs, who are the most senior jurists qualified to make new rulings on issues of contention when they attain the level of "ijtihad". For issuing new rulings based on the Quran, hadithes and logic, they go through a standard and rigorous training lasting more than 30 years and receive letters of attestation from other Ayatollahs on their qualifications for issuing new rulings. Qualified scholars are regarded as independent and differ from their contemporaries in individual rulings. To follow Islamic injunctions in day-to-day matters, a Muslim who is not trained in Islamic law may pose a question to an Ayatollah and receive an appropriate response. The rulings noted later were in response to specific questions asked by people, but may be generalised to the general populace.

PREGNANCY AND STAGES OF FETAL DEVELOPMENT ACCORDING TO ISLAMIC SOURCES

Pregnancy, according to Shi'i Islamic teachings from the seventh century onwards, begins when the fertilised ovum (nutfah) settles in the uterus, and not before it. This view was elaborated on in the classical fiqh (jurisprudence) by the author of *Shahr al-Lum'a*, and in contemporary times by Ayatollahs Khomeini and Khu'i. ¹¹ Five distinct stages of embryonic development are discussed in the Quranⁱⁱ:

And certainly We created man of an extract of clay, then We made him a small seed (*nutfah*) in a firm resting-place (the uterine wall), then We made the seed a clot ('alaqah), then We made the clot a lump of flesh (*mudhghah*), then We made (in) the lump of flesh bones ('idham), then We clothed the bones with flesh (*lahim*) ..." (23:12–14).

In the science of hadith and jurisprudence, the term "nutfah" refers to both the male sperm and the fertilised embryo and is distinguished from the context of its use. Thus the first stage, nutfah starts with conception and ends 40 days after implantation. Each stage lasts 40 days (see below). Thus, at 200 days of age, or at 28 weeks of gestation, a fetus has human proportions. The lungs have matured enough so that it can conceivably survive outside the womb without technological assistance.¹³

At the end of the third period of development—that is, the mudhghah phase, at 4 months (120 days) of gestation—the human "spirit" (ruh) enters the body, termed "wuluj" according to Islamic metaphysics. At this point, the fetus is referred to as "another creation" (23:14):

Then [God] made [man] of an extract, of water held in light estimation. Then He made him complete and breathed into him of His spirit (32:8–9).

Itithad is defined as the deduction of Islamic law by principles and precedent when there is no specific textual source, such as the Quran or Prophetic decree, on which to base one's opinion. (http://www.al-islam.org/al-tawhid/ijtihad/1.htm).

"Translation of Quran by MN Shakir (http://al-islam.org/quran/).

It is at this point and after it that abortion is absolutely forbidden unless the life of the mother is threatened by the continuation of pregnancy. There are hadithes in which Prophet Muhammad ruled on paying tort for the death of a fetus that had passed more than 4 months of gestation by induced abortion. ¹⁴ The amount of tort depends on the sex of the fetus and its degree of development. Regardless of the amount of tort, all the people participating in the abortion are encouraged to seek forgiveness for their deeds according to Islamic ethics. There are other quotations from Prophet Muhammad in which it is said that the angels come to the nutfah at 40 days of gestation to determine its fate. ¹⁵

As abortion is an act that terminates a pregnancy, accordingly, non-therapeutic or elective abortion can be regarded as the termination of pregnancy for non-life-threatening reasons, which is generally not permitted in Islam. This is consistent with the following explanation by Imam Ali Zaynul Abideen, the great grandson of Prophet Mohammad. When asked about when an intentional miscarriage would be considered to be an abortion, he replied, "after the stage of nutfah", explaining, "A nutfah is a substance which, when placed in the womb, settles down in it for forty days." Regardless, the Islamic ethos of respecting life does not encourage non-therapeutic abortion at any time.

CONTEMPORARY ISLAMIC RULINGS ON ABORTION

All scholars, from the four Sunni and the Shiite schools of thought, agree that after the fourth month of gestation an abortion cannot be performed unless it is to save the mother's life. This is true, according to classical jurisprudence¹⁷ and contemporary scholarship. ¹⁸ The disagreements are related to the status of the fetus before 4 months of gestation.

Traditionally, Shiite scholars did not allow abortion before 4 months either. Among contemporary Sunni scholars, there is still disagreement on when an abortion is permissible without payment of tort, and after which point it is no longer allowed, with exceptions as noted earlier. There is a range of opinions on whether it is even a sin to abort a fetus before, at the very least, 40 days. Nearly all jurists agree that wanton abortion is to be discouraged, and that there should be a good reason for an abortion—namely, the mother's health—even before 4 months of gestation.²⁰ The contemporary Shiite Ayatollahs are nearly unanimous in their rulings on abortion before 4 months of gestation, and this is discussed in detail later.

ABORTION BEFORE 4 MONTHS OF GESTATION Wanton, non-therapeutic abortion

Contemporary Shiite jurists consider pregnancy to begin with the implantation of the fertilised embryo in the uterus.²¹ Ayatollah Khomeini²² stated, "Termination of pregnancy even at the earliest possible stage under normal circumstances without any reason is not allowed." Ayatollah Khamene'i²³ wrote, "The *shari'a* does not permit the abortion of a fetus. In the consideration of the honorable *shari'a*, there is no difference between a fetus less than or greater than four months gestation with regard to this matter." This holds true among all the other contemporary Shiite scholars.

Non-therapeutic abortion for non-medical reasons

Traditionally, the prohibition of abortion among the Shiite scholars included non-medical social situations. For example, again, Ayatollah Khomeini²⁴ ruled, "Termination of pregnancy is not allowed for economic reasons, even if that puts a family into hardship, or the old age of mother or having many children." Ayatollah Khamene'i²⁵ has not allowed it when the mother has a diagnosed mental illness. However, as of late, certain social aspects have been considered. Ayatollah Sane'i,²⁶ who is considered to be progressive, ruled, "Any fetal or maternal condition that brings extreme difficulties ('usr va

haraj) for the mother or the family allows for abortion." This is a singular ruling and there is no consensus on this matter.

Therapeutic abortion for medical reasons relating to the health of the mother

Therapeutic abortion has received special consideration among the contemporary scholars when it relates to the health of the mother. Again, Ayatollah Khomeini^{27 28} ruled:

Abortion before 4 months of pregnancy when it leads to a fatal condition for mother is allowed, and, abortion is allowed before 4 months of pregnancy in cases where the mother has an advanced disease as such that her life is threatened by the continuation of pregnancy provided that a specialist physician confirms it.

Therapeutic abortion for medical reasons relating to the health of the fetus

A series of fatal congenital deformities may occur during embryonic development. Contemporary scholars have not generally allowed for an abortion for this reason. However, as we have noted above, one Ayatollah has allowed it in cases of "extreme difficulty". For example, Ayatollah Makarim-Shirazi²9 stated, "It's problematic to abort the fetus (in cases of deformity), particularly because you cannot be absolutely certain that the deformities are not compatible with life." Ayatollah Fazel-Lankarani³0 has allowed the fetus to be aborted before 4 months of development if it is dying from a maternal illness. Ayatollah Khamene'i³¹ initially did not approve of therapeutic abortions based on probability of deformity:

The likelihood of bearing a deformed fetus does not allow for it to be aborted. However, if a trustworthy physician attests that there is a concern that the life of the mother is in danger, the fetus may be aborted before the spirit is breathed into it (i.e. four months gestation).

He has, however, allowed the abortion of a deformed fetus under limited circumstances. A questioner wrote, "Is it permissible for a woman to abort a deformed fetus when she requires special assistance in delivering it, especially granted that she had a similar experience with past pregnancies?" In reply he wrote, "To the degree necessary, such a procedure, with the husband's consent, is not forbidden, but you must avoid any impermissible action that may result from undergoing the abortion."³²

THERAPEUTIC ABORTION AFTER 4 MONTHS OF GESTATION

As we have noted, abortion is not allowed after 4 months of gestation unless the mother's life is in danger. Ayatollah Fazel-Lankarani³³ says,

Aborting a fetus is not allowed under any circumstances after the spirit has been breathed into the fetus, and before this time it is not allowed unless the mother's life is in danger.

According to Imam Khomeini,³⁴ abortion for saving the life of the mother is allowed, whereas abortion is not allowed in the case of a mentally retarded mother if her life is not endangered.³⁵

ABORTION IN ISLAMIC COUNTRIES

In all, there are 57 members in the Organization of Islamic Conference—an organisation of countries with Muslim

majorities or pluralities.³⁶ Most Muslim countries have restrictive abortion laws that permit abortions only when the life of the mother is threatened.³⁷ Twelve members of the Organization of Islamic Conference allow unrestricted access to abortion. With the exception of Turkey and Tunisia, they are mainly former Soviet Bloc states. Bahrain, a politically and socially conservative Muslim state, is the 12th among these countries to permit unrestricted access to abortion. Among socially conservative Muslim countries, seven countries permit abortion in the first 4 months of gestation for fetal deformities, four countries in subSaharan Africa (Benin, Burkina Faso, Chad and Guinea) and three in the Middle East (Kuwait, Qatar and, now, Iran).

CONTEMPORARY ABORTION POLICIES IN THE ISLAMIC REPUBLIC OF IRAN

Iran is the first Islamic country in contemporary times that has attempted to combine principles of theocracy and religious law with representative, parliamentary democracy. People vote for representatives to the unicameral legislative body, the Majlis-e Shura. They debate and pass laws independent of the executive and judiciary branches. The laws passed must, however, go before a special body, Majlis-e Negahban, the Guardian council. This council, comprising six jurists, chosen by the supreme religious leader, and six lawyers, chosen by the parliament, examines laws for conformity to contemporary religious rulings, according to Articles 71 and 96 of the Iranian Constitution.38 If a part of the bill violates Islamic rulings, it is sent back for amendment before ratification. If the impasse still cannot be resolved, it may be sent to the Expediency Council (Majma' Tashkhis-e Maslahat-e Nezam), a mediating body, for further deliberations before final approval or rejection.

According to an official notification from the head of the judiciary, dated Winter 1383 (December 2003–March 2004), to the National Legal Medicine Organization (Sazman-Pezeshki-e Qanooni-e Keshvar), therapeutic abortion may be performed under 51 medical conditions (see boxes 1, 2). This notification was forwarded by the National Medical Council (Nizam-e Pezeshki), legally allowing doctors to practise abortion in conditions mentioned in the notification.³⁹ The Majlis-e Shura-e Islami (Islamic Consultative Assembly or Parliament), in July 2004, also legislated a bill regarding therapeutic abortion in which approval of three specialists is mandatory for the justification of therapeutic abortion. The bill was initially rejected twice on technical grounds by the Guardian's Council. The parliament amended it as per the recommendations of the Guardian's Council on 21 June 2005.

The final bill40 states:

Therapeutic abortions may be performed under the following conditions. First, the fetus must be less than four months of age, that is, before the spirit is breathed into it. Second, the fetus must be suffering from profound developmental delay or profound deformations or malformations. Third, these fetal problems must be causing extreme suffering or hardship for the mother or the fetus. Fourth, the life of the mother should be in danger. Fifth, both the mother and the father give their consent to the procedure. The physician performing the abortion shall not be penalized for the performance of these services.

DISCUSSION

The Islamic Republic of Iran is the most populous Shiite country in the Islamic world and serves politically, socially and, through its seminaries, religiously as a model for other

Box 1. Indications of abortion in maternal diseases before 4 months of gestation

Maternal diseases

- Valvular heart disease, function class III or IV heart failure, which are not reversible to function class II
- Non-coronary acute heart problem, function class III or IV failure, such as myocarditis and pericarditis
- Any history of dilated cardiomyopathy in previous pregnancies
- Marfan syndrome accompanied by ascending aorta diameter >5 cm
- Eisenmenger syndrome
- Gestational fatty liver
- Oesophageal varices (grade III)
- History of bleeding from oesophageal varices after portal hypertension
- Uncontrollable autoimmune hepatitis
- Renal failure
- Hypertension (uncontrollable with permitted drugs in gestation period)
- Any pulmonary diseases such as emphysema, fibrosis, kyphoscoliosis, diffuse bronchiectasis with pulmonary hypertension even in the mild form
- Hypercoagulability in which heparin administration may worsen the mother's existing life-threatening disease
- HIV infection that has entered the AIDS disease phase
- Uncontrollable active lupus with the involvement of a major organ
- Vasculites with the involvement of major organs
- All space-occupying lesions of the central nervous system in which beginning treatment causes danger to the fetus and not beginning treatment causes danger to the mother
- Phemphigus vulgaris, severe and generalised psoriasis and end-stage melanoma, which leads to serious fatal danger for the mother
- Epilepsy that is resistant to treatment, despite giving multiple drugs

Shiite countries, such as Iraq, and Shiite minorities in Sunnimajority countries such as Bahrain, Kuwait, Lebanon and Afghanistan. Socio-religious trends in Iran are adopted by other Muslim countries over time as there are more than 100 000 theologians or students of theology in the holy city of Qom alone, from over 100 countries around the world.⁴¹

Islamic law has historically been flexible and sensitive to public needs and social realities. The differences among rulings of Shiite scholars stem from hadith sources that are considered by them to be authentic or otherwise for deriving their rulings. This is based mainly on the reliability of narrators of a particular hadith, its conformity to the verses of the Quran or to other similar traditions. In addition, there are two principles invoked by scholars that have aided in this flexibility, istislah (consideration of the public good) and istihsan (seeking an equitable and just solution), when the logical outcome of a ruling based on shari'a principles is harsh or impractical in application.⁴²

It seems that many Shiite and Sunni scholars have allowed abortions for limited social and medical reasons because of the expanding populations in Muslim countries and

Box 2. Indications of abortion in fetal deformities and disorders incompatible with life

Fetal conditions

- Osteogenesis imperfecta
- Osteochondrodysplasia
- Infantile osteopetrosis (malignant form)
- Bilateral renal agenesis
- Polycystic kidney (recessive form)
- Multicystic dysplastic kidneys
- Potter's syndrome
- Congenital nephrotic syndrome (with hydrops)
- Chromosomal disorders leading to degenerative lesions and brain and kidney involvement, such as vertebrae, anus, cardiovascular tree, trachea, oesophagus, renal system and limb buds (VACTERL) syndrome
- Severe bilateral hydronephrosis
- α-thalassaemia with hydropsis fetalis
- Homozygote thrombotic disorders (ie, protein C or factor V Leiden deficiency)
- Trisomy 8
- Trisomy 13
- Trisomy 16
- Trisomy 18
- Trisomy 3
- Anencephaly
- Fetal hydrops
- Crie du Chat syndrome
- Holoprosencephaly
- Syringomyelia
- Cranioschisis
- Meningoencephalocele or hydroencephalocele
- Thanatophoric dysplasia
- Holoprosencephaly
- Ichthyosis congenital neonatum
- Schizencephaly
- Exencephalia

constrained health budgets. In addition, several factors may have led Shiite scholars to reconsider the traditional ban on abortion after conception. The introduction of a theocracy in the Islamic Republic of Iran thrust religious scholars into an unprecedented role of responsibility and involvement in social planning and public health. Being faced with health crises on a large scale may be partly responsible for scholars invoking istislah and istihsan in their rulings on medical and health affairs, rather than considering a question in an isolated or theoretical sense as was done in the past. It is also a social reality that more than 80 000 illegal abortions are performed in Iran every year,43 possibly in unsanitary conditions that put the life of the mother at risk—a public health crisis in its own right. The technological advancement in fetal imaging, genetic testing and therapeutics has allowed for earlier detection of fatal or terminal congenital illnesses. This may have given scholars impetus to reconsider the public health ramifications of fatal congenital deformities or the financial hardships that serious, long-term congenital illnesses have on poor families. In addition, this would also place a substantial financial burden on the health insurance system introduced in the recent past.

Abortion for medical reasons to save the life of the mother has always been permitted in Islam. What is new about these current rulings and legislation in the case of the Islamic Republic of Iran is that it specifies and broadens the conditions for which a mother or family may seek a therapeutic abortion. More importantly, for the first time, fetal viability and social hardships have been considered reasons for requesting a therapeutic abortion. It may be thought that creating a theological and legal mechanism to pursue termination of pregnancy will reduce unnecessary stress for the families and procedural difficulties for the hospital staff and doctors. It may also reduce the cost of the procedure as illegal or back-door abortions have higher costs, not even considering the need for a second legal procedure when the illegal procedure fails to evacuate the placenta. Socially, having an illegal abortion is a stigma for the patient and her family in traditional societies. With valid permission for the religious scholars, approval of an abortion bill by the parliament and its implementation by the National Legal Medical Organization, this social taboo may be lessened over time. People would view therapeutic abortions as a necessity rather than a shirking of responsibilities or feticide, both of which are strongly disapproved of.

It is not clear, however, what the true effect of this legislation will ultimately be. Several congenital abnormalities cannot be detected in utero, especially before 4 months of gestation, with much accuracy.44 About 90% of cases of central nervous system defects (ie, holoprosencephaly and anencephaly) are detected 24 weeks after gestation, whereas the absolute cut-off date for abortions in Islam is 4 months or 4 months and 10 days at most.45 Serum marker tests for Down's syndrome (trisomy 21) and neural tube defects are not carried out until the 15th week of gestation at the earliest. According to Imam Khomeini,16 however, to safeguard the life of the mother, abortion is allowed after 4 months in conditions in which the fetus will not survive outside the uterus, and doctors can carry out abortion under such conditions without legal implications.

Additional technical considerations related to the detection of the deformities defined by the National Medical Council bring the efficacy of this law into question. Most disorders must be diagnosed by ultrasound, and an experienced sonographer and perinatologist are required to properly interpret the scans. At present, this technology and the attendant experts in Iran or other Muslim countries are available only in large cities, limiting the applicability of the legislation. The poorest Muslims, often living in rural areas or in city slums, will still be left with a heavy financial burden of caring for children with lifelong medical needs arising from congenital disorders, whereas, ironically, it was mostly out of consideration for their hardships that this law was passed. Instead, the wealthier families with access to the wellequipped private hospitals will be able to easily find doctors for therapeutic abortion on legal grounds. It is also not a remote possibility that previously illegal back-street abortions may now be carried out under legal cover because of this new law. Doctors may be lured by financial gains to carry out illegal abortions under legal cover.

Several concerns and objections are raised against the legalisation of therapeutic abortion in the framework of Islamic law and the spirit of Islamic teachings. Given the rising incidence of premarital sex among the wealthy, secularised children of Tehran's elite and those in some other large cities, the new law may encourage promiscuity and an increase of sexually-transmitted diseases among the youth. The number of fetuses falsely being diagnosed with "fatal" conditions may also rise.38 In cases where a viable child is mentally or otherwise handicapped, many traditional families may happily take care of their children because of

the belief that doing so would bring them the "mercy of God".46 Finally, such a bill also partly undermines the importance that Islam places on redemptive suffering and patience. For example, Prophet Muhammad counselled that God shows mercy on a person who shows patience when his child dies,47 and that child will intercede on their behalf on the Day of Judgement.48

It should be reiterated that ordinarily, abortion is not encouraged or approved of after implantation of the fertilised egg. Where financial or severe mental anguish are not factors affecting the mother's health or the child's care, carrying the pregnancy to term is preferable to abortion, and the therapeutic abortion bill as passed by the Iranian Parliament considers these issues. This would most likely be the case for affluent Muslims and many other Muslim families living abroad, where public health policies, social services and public insurance help ease the financial strains of pregnancy and delivery.

CONCLUSION

In conclusion, abortion is a generally forbidden act according to Islamic teachings. It is permissible under certain circumstances if carried out before ensoulment at 4 months of gestation and after that to save the life of mother. Traditionally, the well-being of the mother was the sole consideration for abortion. Currently, some Islamic countries, including Iran, and several Sunni and Shiite scholars, have permitted abortions when the fetus has congenital disorders that are profoundly debilitating or not compatible with life, or when there are serious social or economical hardships entailed in carrying a child to term. The therapeutic abortion legislation in the Parliament of the Islamic Republic of Iran is a step towards crafting a legal mechanism for abortion in accordance with the laws of Islamic Shari'a. It is of utmost importance that safeguards against misusing this provision are scrupulously observed to maintain the spirit of Islam's emphasis on respect for life, while recognising the emphasis on not making religion a burden on people.

ACKNOWLEDGEMENTS

We thank Dr Zahedi, Dr Kafi and Ms Noori for procuring the copies of the Persian documents, and Doha Raik of the Stanford University Hospital Spiritual Care Department and Dr Soltani of Stanford University for reviewing the manuscript and for helpful suggestions.

Authors' affiliations

K M Hedayat, Sutton Children's Hospital at Christus-Schumpert Hospital, Shreveport, Louisiana, USA

P Shooshtarizadeh, INSERM Unite 575, Physiopathologie du Systeme Nerveux, Strasbourg, France

M Raza, Department of Physiology, School of Medical Sciences, Tarbiat Modares University, Tehran, Iran

Competing interests: None.

REFERENCES

- 1 Markwell HJ, Brown BF. Bioethics for clinicians: 27. Catholic bioethics. Can Med Assoc J 2001;165:189–92.

 2 Pauls M, Hutchinson RC. Bioethics for clinicians: 28. Protestant bioethics. Can
- Med Assoc J 2002;166:339-43.
- 3 Lecso PA. A Buddhist view of abortion. J Religion Health 1987;26:214-18.
- Lewis JA. Jewish perspectives on pregnancy and child bearing. Matern Child Nurs 2003;28:306-12
- 5 Novak D. Be fruitful and multiply: issues related to birth in Judaism. In: Rela M, ed. Celebration and renewal: rites of passage in Judaism. Geffen, PA: The Jewish Publication Society, 1993:16–19.
- 6 Pope John Paul II. Evangelium vitae: the gospel of life (1995). http://www.vatican.va/holy_father/john_paul_ii/encyclicals/documents/hf_jpii_enc_25031995_evangelium-vitae_en.html (accessed 4 Jun 2005).
 7 Abortion statistics and other data. http://www.johnstonsarchive.net/policy/
- abortion/ (accessed 13 Dec 2005).
- 8 Allen Guttmacher Institute. Facts in brief: induced abortion worldwide http://www.agi-usa.org/pubs/fb_0599.html (accessed 30 May 2005).

- 9 US Census Bureau. Global population at a glance: 2002 and beyond International population. Report No: WP/02-1, http://www.census.gov/ipc/ prod/wp02/wp02-1.pdf (accessed 30 May 2005)
- ADAM health illustrated encyclopedia, 2005. http://www.nlm.nih.gov/medlineplus/ency/article/001.512.htm (accessed 20 Nov 2005).
- Shahid al-Thani ZD, Ar-Rawdha al-Bahiyya fi Shrah al-Lum'a ad-Damishqiyya. Vol. 3. Arabic text. Qom, Iran: Esma'eeliyan Publishers,
- 12 Sharh al-Luma' Damishq, Tahrir al-Wasa'il, at-Tanqih fi Sharhi 'l-'Urwati 'l-Wuthqa. Contraceptives and abortion. In: Marriage and morals in Islam. 2nd edn. http://al-islam.org/m_morals/index.htm (accessed 6 Apr 2005).
- 13 Haddad GG, Fontan JJP. Development of the respiratory system (Chapter 355). In: Behrman RE, ed. Nelson textbook of pediatrics. 17th edn.
- Philadelphia, PA: Saunders, 2004:1358.

 14 **Bukhari M**. Book 80. Al-Faraa'id, Vol.8. Hadith no: 732, [Translated by MM Khan]. The English translation of Sahih al Bukhari with the Arabic text. Alexandria, VA: Al-Saadawi Publications, 1996. http://www.usc.edu/dept/ MSA/fundamentals/hadithsunnah/bukhari/ (accessed 15 Jun 2005).
- 15 Nisapuri M. Book 33. Kitab al-Qadr, hadith no: 6393, [Translated by AH Siddiqui]. Sahih Muslim. Vols I–IV. 2000. http://www.usc.edu/dept/MSA/
- fundamentals/hadithsunnah/muslim/ (accessed 15 Jun 2005).

 16 Kulayni M. Bab Diyat al-Jinin. Vol. 2. Hadith no: 15, Al-usul al-kafi. Tehran, Dar al-Kutub al-Islamiyyah. In: Jam'e al-Hadith CD-ROM. 2nd edn. Qom, Iran: Computer Research Centre of Islamic Sciences, 2004.
- Yacoub AAA. The prevention and termination of pregnancy. In: The Figh of medicine. London: Ta-Ha Publishers, 2001:210-12
- Yacoub, AAA. Appendix H: some resolutions of Al-Majami' al-Fighia. In: The Figh of medicine. London: Ta-Ha publishers, 2001:320.
- Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. 2nd edn. Cases 4–6. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:81.
- Bowen DL. Contemporary Muslim ethics of abortion. In: Jonathan E, ed. Islamic ethics of life: abortion, war, and euthanasia. Brockopp, Columbia: Univesity of South Carolina Press, 2003:51–80.
- Makarim-Shirazi N. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 12, 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation,
- 22 Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. Case no 2, 2nd edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:80.
 23 Khamene'i A. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 1, 1st edn.
- Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:109
- Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. Case no 9, 2nd edn. Fehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:81.
- Khamene'i A. In: Ahkame P, Rohani M, Noghani F, eds. *Ruling no 4*, 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:109.
- San'ei Y. In: Ahkame P, Rohani M, Noghani F, eds. *Case nos 1–2*, 2nd edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:87.

 Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. *Ruling no 1*. 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:108.
- Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. Case no 3. 2nd edn.
- Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:80.

- 29 Makarim-Shirazi N. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 1. 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation,
- 30 Fazel-Lankarani M. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 1. 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:114.
- Khamene'i A. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 6. 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:109.
- 32 Khamene'i A. Pezeskhy dar a'ineh ijtihad: Istifta'aat-e pezeshy az hazrat-e ayatollah al-uzma Khamene'i, question #16267-1. Qom, Iran: Sadr Publications, 2003:104.
- 33 Fazel-Lankarani M. In: Ahkame P, Rohani M, Noghani F, eds. Ruling no 1. 1st edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1998:114.
- 34 Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. Case nos 4-6. 2nd edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:81.
- 35 Khomeini R. In: Ahkame P, Rohani M, Noghani F, eds. Case no 7. 2nd edn. Tehran, Iran: Taymurzadeh Cultural Publication Foundation, 1999:81
- 36 Orgnization of Islamic Conference. Heading "About OIC", sub-heading Members". http://www.oic-oci.org/ (accessed 15 Jun 2005).
- Center for Reproductive Rights. The World's abortion laws (2004). http:// www.crlp.org/pub_fac_abortion_laws.html (accessed 15 Jun 2005).
- 38 Constitution of the Islamic Republic of Iran (1979). http:// www.iranonline.com/iran/iran-info/Government/constitution.html (accessed 15 Jun 2005).
- 39 National Medical Council. Conditions for the permissibility of abortion Notification of the chief justice to the national legal medical organization: 1383;20-4.
- 40 Islamic Republic News Agency. Majlis tarh-e siqt-e jenin ra eslah kard (Parliament revises therapeutic abortion bill). 22 June 2005. http:// www.irna.ir/fa/news/view/menu-154/8403100337112915.htm (accessed 22 May 2005)
- World Center for Islamic Study. Introduction the World Center for Islamic Sciences, 2004. Qom, Iran: World Center for Islamic Study, 2004.
- Yacoub AAA. Islamic Figh. In: The Figh of medicine. London: Ta-Ha Publishers, 2001:26.
- Associated Press. Iran parliament mulls easing abortion law. Associated Press, 11 Apr., 2005.
- 44 Johnson TRB, Neibyl JR. Preconception and prenatal care: part of the continuum. In: Gabbe SG, Neibyl JR, Simpson JL, eds. Gabbe: obstetrics normal and problem pregnancies. 4th edn. New York: Churchill Livingstone, 1997-254-6
- 45 Hirsch JF, Bhagwati SN, Epstein F, et al. Medical abortion: ethics, laws and religious points of view, a study by the 1994–1995 ethics and morals committee of the ISPN. *Childs Nerv Syst* 1996;**12**:507–14.
- 46 Agence France Press. Iran's parliament eases abortion law. Agence France Press, 13 Apr 2005.
- Majlisi MB. Book 17. Air al-Masa'ib. Vol. 79. Hadith no: 4. Bihar al-Anwar, Beirut: Mu'assasah al-Wafa', 1984:115
- 48 Shahid al-Thani ZD. Musakkin al-fu'ad. 1st edn. Qum: Intisharaat Kitabkhaneh Basirati, 1987.