Proceedings of a Seminar on

ETHICAL IMPLICATIONS OF USE
OF ASSISTED REPRODUCTIVE TECHNOLOGY
FOR TREATMENT OF HUMAN INFERTILITY

Editor

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Rabei Akhar 21 - 23rd, 1418
August 25 - 27th, 1997
A Seminar on

**ETHICAL IMPLICATIONS OF USE OF ASSISTED REPRODUCTIVE TECHNOLOGY FOR TREATMENT OF HUMAN INFERTILITY**

Under the Patronage of Grand Imam of Al-Azhar

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Rabei Akhar 21 - 23rd, 1418
August 25 - 27th, 1997

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The Islamic Educational, Scientific and Cultural Organization (ISESCO) and the World Islamic Call Society continue monitoring the successive and rapid developments in different branches of science. They seek to help Islamic countries to achieve progress in the fields of science to keep pace with advanced countries at the scientific and technological levels. Both organizations encourage Islamic countries to excel in sciences and control their applications. They reflect continuously on the moral repercussions of research in different fields of science and technology. They also published a number of specialized studies in scientific and technological fields that witnessed rapid developments and had a direct impact on the daily life of human beings. These publications offer the people the interpretation of experts and scholars of norms that should be observed from an Islamic point of view, in their various applications.

The specialized scientific seminar held in Cairo, Arab Republic of Egypt, from 21 - to 23 Rabi’ul Akhar 1418H (25 - 27 August, 1997) on Bioethics in Medically Assisted Conception as a treatment of infertility, is one of the important seminars that greatly enriched scientific research in this discipline, which directly affects the daily life of human beings. This branch of science is still growing and developing in a manner that raises certain critical ethical queries that drove scientists and Muslim jurists to give detailed replies which are needed by all Muslims to enable them to benefit from this scientific progress while feeling re-assured of its ethical compliance to Islamic precepts. The Patronage of His Eminence Sheikh Al-Azhar, and the chairmanship of His Eminence the Rector of Al-Azhar University and the management of the Seminar by the Director of the International Islamic Center for Population Studies and Research of Al-Azhar University contributed greatly to its success in achieving this planned objective.

The Seminar on Bioethics in Medically Assisted Conception as a treatment of Infertility reviewed 16 research papers which tackled the different aspects of this issue, starting with bioethics in human reproduction from an Islamic Perspective to the methods, regulations and ethics of medically assisted conception. It also elaborated on the social aspect of the issue and concluded by expressing the standpoint of Islamic Shari’a towards medically assisted conception. Finally, the Seminar presented its findings in a final declaration and issued a set of recommendations.
This Seminar was the fruit of close cooperation between ISEESCO, the Islamic Call Society and Al-Azhar University, represented by its International Islamic Center for Population Studies and Research prepared a manual on the proceedings of the Seminar and translated it. This reflected a high-level of coordination among the three institutions in this vital field of interest for the welfare of the Islamic nations.

ISEESCO and the Islamic Call Society, in an endeavour to continue their support for disseminating ethical rules for the promotion of progress in the field of Science and Technology in different areas from an Islamic perspective, take pleasure in presenting this book in the proceedings of the Seminar in three languages, namely: Arabic, English and French to researchers, students and to the media hoping that its contents will help them, enrich their research and open new horizons for more studies in fields related to human life.

Dr. Abdel Aziz Al-Twegri  
Director General, ISEESCO

Dr. Mohamed Ahmed Al-Sharif  
Secretary, General Islamic Call Society
BACKGROUND

At the invitation of the Scientific Division of the Islamic Educational, Scientific and Cultural Organization (ISESCO), the International Islamic Center for Population Studies and Research of Al-Azhar University organized the convening of a Seminar on Ethical Implications of Use of Assisted Reproductive Technology for Treatment of Human Infertility.

The meeting was held from 21 - 23 Rabi-ul-Akhar 1418H, corresponding to 25 - 27 August 1997, at the Center of Sheikh Saleh Abdullah Kamel for Islamic Economy, at Al-Azhar University, under the patronage of His Eminence Al-Imam-ul Akbar, Sheikh of Al-Gameh Al-Azhar, Prof. Dr. Mohamed Sayed Tantawy, and the Chairmanship of Dr. Ahmed Omar Hashem, Rector of Al-Azhar University, with the organizational and material assistance of ISESCO and the World Islamic Da'wa Association.

His Eminence, the Rector of Al-Azhar University, the first under-secretary of the Ministry of Health, representing H. E. the Minister of Health, the deans of the various faculties of the University, and participating experts from Islamic countries: Morocco, Tunisia, Saudi Arabia, Kuwait, Pakistan, Qatar, Jordan, Malaysia, and Egypt attended the opening session. Participated also in the meetings: Dr. Khaled Hamed Al-Sheikh, representing H.E. the Director General of ISESCO, Mr. Ibrahim Ali Al-Rabou, representing the World Islamic Da'wa Association, and Dr. Gamal I. Serour, Director of the International Islamic Center for Population Studies and Research of Al-Azhar University, and Secretary General of the Seminar.

The participants reviewed the researches on the topic of Ethics in Medically Assisted Conception for the Treatment of Infertility and the stand of Islam and Islamic Shari'a in this regard.

They also reviewed the measures taken in this field by Egypt, Saudi Arabia, Kuwait, and Qatar and throughout the Islamic world; the process of medically assisted conception as a treatment of the infertility of men and women, the stand of Islam as regards the choice of the gender of the child, the fate of excess ova and embryo, and the surrogate mother for the treatment of intractable cases of infertility. After extensive and in-depth deliberations on the ethics governing the examination of the genes of embryo, the clinical scientific researches on medically assisted conception and its social implications, the
participants came out with important recommendations that were adopted by the participants.

The Seminar was well covered by the media: references and abstracts from it appeared in the three major morning papers, namely Al Ahram, Al Akhbar, and Al Gomhouriya, several days prior to it and during its convening; its news were broadcast by the various channels of the radio of the Arab Republic of Egypt, and also appeared on the Egyptian television screen amidst the News Bulletin.

The International Islamic Center for Population Studies and Research of Al-Azhar University expresses its appreciation and gratitude to the Islamic Educational, Scientific and Cultural Organization and to the World Islamic Da'wa Association for carrying out this activity, in cooperation with the Center.

It is our hope that this fruitful and constructive cooperation will continue in the future in the best interest of the entire Muslim Ummah.

Prof. Gamal I. Serour, FRCOG, FRCS
Secretary General of the Seminar
INTRODUCTION

With the progress achieved in Assisted Reproduction Technology (ART) it is now possible to treat the previously incurable cases of human infertility at various centres in the world. The use or rather abuse of ART, in many instances, has resulted in clashes with cultural, religious and ethical values. It is of paramount importance that guidelines be established for its use for the treatment of human infertility in Muslim countries.

Objectives:
1. To devise ethical guidelines for the implementation of ART in Muslim countries.
2. To draw up ethical guidelines for establishing ART units in Muslim countries.
3. To propose legislative measures to regulate laboratory procedures including research work in assisted reproduction units.
4. To draw up ethical guidelines for the use of clinical practices in ART units.

Seminar Topics:
1. ART as a treatment of human infertility for both males and females.
2. Use of gametes and the fate of spare oocytes and embryos.
3. Sex selection in Muslim Countries.
4. Ethics to be observed in gene screening of embryos.
5. The attitude of Islam regarding the use of surrogate mothers for the treatment of cases of incurable infertility.
6. Scientific and clinical research in ART.
7. Social attitude regarding ART.
INAUGURAL SESSIONS
Prof. Gamal I. Serour
Prof. of Obstetrics and Gynaecology & Infertility
Director of the International Islamic Center for
Population Studies and Research, Al-Azhar University

In the Name of God, The Merciful, the Compassionate

- His Eminence Dr. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar.
- H.E. Dr. Ismail Sallam, Minister of Health and Population.
- H.E. Dr. Ahmed Omar Hashem, Rector of Al-Azhar University.
- Prof. Mohamed Tawfik Oweida, Deputy Rector for Higher Studies and Research, Al-Azhar University.
- Dr. Khaled Al-Sheikh, Director of Scientific Affairs and Representative of His Excellency the Director-General of ISESCO.
- Mr. Ibrahim Ali Al-Rabu, Secretary, International Conference Department and Representative of the World Call Society.
- Excellencies, The Ambassadors and Representatives of International Organizations.
- H.E. Dr. Ibrahim Badran, Chairman of the Egyptian National Bioethics Committee, Members of the Committee.
- Dear Brothers from Different Arab and Islamic States.
- Honourable Deans and Professors of Faculties of Al-Azhar University.
- Distinguished Participants.

Peace, Mercy and Blessings be upon you all.
Praise be to God, Lord of the Worlds, and prayers and peace be upon the most noble of His Messengers, Prophet Mohamed, his kith, kin and companions..

It is a great honour for me to welcome you wholeheartedly on behalf of Al-Azhar University represented by one of its scientific and research units, i.e. the International Islamic Centre for Population Studies and Research to discuss one of the most important issues of special interest to the Centre: "The Ethical Implications of the Use of Assisted Reproduction Technology for the Treatment of Human Infertility," organized jointly by the Centre, ISESCO, and The World Call Society.

Ladies and Gentlemen,
The International Islamic Centre of Al-Azhar University was established in cooperation with the United Nations Fund for Population
Activities to conduct population studies and research in the Muslim World and give credibility to demographic data before publishing them in Muslim countries. This objective has been actually achieved and the Centre continues to pursue this goal through a number of activities including various seminars held within the Arab Republic of Egypt and different Muslim countries on population problems and possible solutions from an Islamic perspective, as well as convening conferences, workshops and conducting research and training activities. Furthermore, it contributes to developing population curricula and continuous documentation through publishing periodical reviews, news bulletins concerned with population sciences. These publications include Population Science Journal, a reference book on Population Education from an Islamic Perspective in cooperation with the Research Centre for International Development in Canada (IDRC), the Islamic Manual for Family Planning in cooperation with the Government of Denmark (DANIDA) and a Study on the Problem of Maternal Mortality in the Muslim World in cooperation with the World Health Organization and the United Nations Population Fund.

The Centre paid great importance to issuing publications on bioethics in human reproduction research in the Muslim World as reference material for those working in this field in different parts of the Muslim World and as a document for international and foreign organizations who want to know the Islamic point of view on such delicate matters. The Centre was able to achieve this objective through holding the first International Conference on Bioethics of Human Reproduction Research in the Muslim World during the period 11 - 13 December 1991 in which more than 50 Muslim states took part in addition to international organizations. The Centre published the proceedings of this Conference and the Manual on Bioethics in Human Reproduction Research in the Muslim World in both Arabic and English. Both these documents became an important reference to authorities concerned in this field.

Today, the Centre continues its action by holding this important seminar jointly with ISESCO, and The Islamic World Call Society after the treatment of infertility has taken great strides ahead. We are meeting to discuss new developments that have taken place over the past few years and reach recommendations that will be of great importance to concerned parties in this field.

Pursuant to the same trend, the Centre focused on developing a course for a code of conduct for Medicine in the Muslim World to be taught in different faculties of medicine in cooperation with the Faculty of Medicine of Al-Azhar University.
Ladies and Gentlemen,

We are meeting today in this important three-days seminar to discuss a vital topic on "Bioethics in Medically Assisted Reproduction in the Treatment of Human Infertility" due to recent developments that took place in this field. Our first moral obligation in this respect is to note, with appreciation and gratitude, the great accomplishments of different institutions and Muslim countries that helped to regulate practices in this field, and which served as guidelines to specialists working in this vital branch of advanced medicine. These include, for example, 'Fatwas' issued by Al-Azhar Al-Sharif in 1980, the Islamic Fiqh Academy in Mecca, 1984 and 1985, the Islamic Medical Organization in Kuwait, 1985, the Manual of the International Islamic Centre for Population Studies and Research of Al-Azhar University in 1991, and the Report of the Seminar on Ethical Implications of Advanced Research in Genetic Engineering, Qatar, 1993.

This Seminar aims to fulfill the following objectives:
1. To review previous achievements in Egypt, Saudi Arabia, Kuwait, Qatar and other parts of the Muslim World during the past years.
2. To compile a code of ethical conduct to be observed in the application of Assisted Reproduction Technology in Muslim states.
3. To compile a code of ethical conduct for establishing specialized units in Assisted Reproduction Technology in Muslim states.
4. To propose legislation for regulating all laboratory experiments including research conducted in Assisted Reproduction Technology units.
5. To develop rules of ethical code of conduct for some clinical treatment practices in Assisted Reproduction Technology units.

The main themes of the Seminar are as follows:
2. The use of gametes and the fate of oocytes and spare embryos.
3. The position of Islam with regard to selection of the sex of the embryo.
4. Ethical considerations that govern screening of embryos.
5. The attitude of Islam with regard to surrogate motherhood as a treatment of incurable cases of infertility.
7. Social attitude toward Assisted Reproduction Technology.

Participants from twelve countries including Jordan, Tunisia, Morocco, Saudi Arabia, United Arab Emirates, Kuwait, Pakistan,
Singapore, Malaysia, Bangladesh, Arab Republic of Egypt are attending this Seminar.

We are confident that the Seminar will observe scientific integrity in all research papers under consideration with a view to elaborating rules of ethical conduct. Islam has highly valued the humanitarian aspect of man and seeks to safeguard him and enjoins him to observe proper rules of ethics. God has blessed him with commendable traits and attached importance to the purity of his lineage to ensure that he procreates within the legitimate framework of a strongly bonded and well-regulated marriage. God has warned against mingling of lineage and giving the offspring a different name than that of his/her real father’s. He also warned the wives to beget her husband an illegitimate child. The primary ethical consideration on the part of scientists is the feeling of responsibility towards humanity. They should always maintain what God has ordained. Integrity calls upon scientists to abide by knowledge they are sure of and never give preference to what they just assume or guess.

In tackling this vital issue, the studies presented in this Seminar include the treatment of infertility in a quest for the psychological stability of the married couple who were deprived of having children, the most cherished ornament of worldly life, to strengthen their feeling of affection and mercy.

This Seminar is held within the framework of cooperation between the International Islamic Centre for Population Studies and Research and ISESCO. We would like to welcome all the participants. May God guide us all to work for the welfare of the entire Muslim Nation.

In conclusion I would like to express our thanks and gratitude to His Eminence Dr. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar for having concurred to convening this Seminar under his patronage and for attending this session which supports and enriches our purpose. I would also like to thank Dr. Ismail Sallam, Minister of Health, for taking part in this Seminar. I also thank Dr. Ahmed Omar Hashem, Rector of Al-Azhar University, for his participation and chairing of the Seminar. I would also like to thank him for his effective and constructive participation and for his unflagging support to all the activities of the Centre over the years in his capacity as a distinguished scholar in Al-Azhar University, then as its Rector.

I would also like to thank Dr. Khaled Sheikh, Director of the Science Department, and representative of His Excellency, the Director-
General of ISESCO, for his participation and for his financial and scientific support and for taking part in the preparations for this important Seminar.

I would like to thank our guests who came from different parts of the Muslim World to participate in this Seminar. I wish them all a pleasant stay in their Islamic brotherly country, the heart of the Arab nation, the Arab Republic of Egypt.

I would also like to thank all those who took part in this inaugural session. May they be well rewarded by God.

I would also like to thank the staff-members of the International Islamic Centre for Population Studies and Research for their tireless efforts in the preparation of our Seminar. In conclusion I would like to extend sincere thanks to the staff of the Saleh Abdullah Kamel Centre for Islamic Economics of Al-Azhar University with the leadership of Dr. Mohamed Abdel Halim Omar, Director of the Centre for having agreed to host our Seminar and for providing every assistance to make it a real success.

May God guide us to fulfill the welfare of our Muslim Ummah. Peace, Mercy and Prayers be upon you all.
Dr. Khaled Hamid Sheikh  
Director (Science)  
Islamic Educational, Scientific and Cultural Organization (ISESCO)

In the Name of Allah, Most Gracious, Most Merciful

- Your Excellency Prof. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar.
- Your Excellency Prof. Ismail Sallam, Minister of Health, Arab Republic of Egypt.
- Your Excellency Prof. Ahmed Omar Hashim, Rector of Al-Azhar University.
- Prof. Ibrahim Ali Al-Rabou, Secretary, Conferences and International Organizations Bureau, World Islamic Call Society.
- Prof. Gamal I. Serour, Director, International Islamic Center for Population Studies and Research, Al-Azhar University.
- Excellencies.
- Ladies and Gentlemen.

Assalamu Alikum wa Rahmatu Allah wa Barakatuh.

It is an honour and privilege for me to welcome you all, on behalf of the Islamic Educational, Scientific and Cultural Organization (ISESCO), its Director General, H.E. Dr. Abdul Aziz Othman Al-Twaijri and on my own behalf, to the Inaugural Session of the Seminar on "Ethical Implications of Use of Assisted Reproduction Technology for Treatment of Human Infertility." This Seminar is co-sponsored by ISESCO and the World Islamic Call Society and is being organized in collaboration with the Al-Azhar University International Islamic Center for Population Studies and Research.

The Seminar is being attended by distinguished Muslim scholars from Bangladesh, Egypt, Germany, Jordan, Kuwait, Malaysia, Morocco, Pakistan, Qatar, Saudi Arabia, Singapore, Tunisia and United Arab Emirates.

We are particularly honoured by the presence of your Excellency Prof. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar amongst us. Your Excellency's gracious acceptance of the invitation to preside over this Session and deliver the Inaugural Address is a source of inspiration and encouragement for us.

Al-Azhar is a beacon of knowledge and jurisprudence for the entire Islamic World and it is an honour and privilege for us to assemble here to discuss the important subject of this Seminar at this great seat of learning and scholarship.
We are privileged to have received the gracious patronage of His Excellency Mr. Mohamed Hosni Mubarak, President of the Arab Republic of Egypt and are inspired by His Excellency’s keen interest and support for joint Islamic action for the comprehensive development of the Muslim World.

We would like to avail this opportunity to thank His Excellency the Minister of Education of the Arab Republic of Egypt and the Secretary General of the Egyptian National Commission for Education, Science and Culture for their valuable guidance and support in devising the policies and programmes of ISESCO through their active participation in the deliberations of the General Conference and the Executive Council of ISESCO, and for making it possible for us not only to implement programmes in this esteemed country but also to make use of the facilities and expertise available in the Arab Republic of Egypt for the benefit of other ISESCO Member States.

We extend a warm welcome to the distinguished participants of the Seminar and wish them a productive and pleasant stay in the beautiful and hospitable city of Cairo.

We are grateful to the distinguished guests who have accepted the invitation to attend the Inaugural Session of the Seminar.

Your Excellency

Ladies and Gentlemen

Islam encourages the undertaking of research and places no restrictions on human thinking. Islam promotes the acquisition and generation of knowledge as long as it is of benefit to mankind and is not divorced from ethics and morality.

One of the on-going activities under Science Programmes of ISESCO is the study and analysis of ethical implications of modern researches in science and technology. Accordingly, ISESCO, with the cooperation of the World Islamic Call Society and the Faculty of Science, University of Qatar, organized in Doha in February 1993 a Seminar on "Ethical Implications of Modern Researches in Genetics" which brought together specialists in different biological and medical fields, scholars in Islamic Shariah and humanities who came up with useful recommendations and ethical guidelines based on a comprehensive review of advanced scientific researches in the field of Genetics. The Proceedings of this Seminar, published in Arabic, English and French, have been distributed to all ISESCO Member States. Similarly, in June this year at Casablanca, ISESCO co-
sponsored with the Islamic Organization for Medical Sciences, and Hassan II Foundation for Scientific and Medical Research on Ramadan, an interdisciplinary Meeting on "Islamic Perspective on Some Contemporary Medical Issues" which, among others, discussed the issue of somatic cloning of the sheep-Dolly- and its ethical implications for humans.

Within the scope of the afore-mentioned Programme of ISESCO, studies on "New Advances in Biotechnology and their Ethical Implications from an Islamic Perspective" and "Ethical Implications of Release of Genetically Engineered Organisms in the Environment" are under preparation while a study on "Assisted Reproduction Technology: State-of-the-Art" has been published in 1996.

Your Excellency,
Excellencies,
Ladies and Gentlemen,

With the advent of Assisted Reproduction Technology (ART) it is now possible to treat human infertility at various centers in the world. The use or abuse of ART, in many instances, has resulted in clashes with cultural, religious and ethical values. Instead of blindly following the ART, it is of paramount importance that guidelines be established for its use for the treatment of human infertility in Islamic countries.

The broad objectives of the present Seminar are to recommend ethical guidelines for the implementation of ART in Muslim countries and to consider legislative measures needed for all laboratory procedures, including research work, in assisted conception units. This Seminar is intended to be a multidisciplinary forum for discussion and exchange of information among religious scholars, scientists, clinicians and social workers to recommend guidelines for the use of ART for the treatment of human infertilities in Muslim countries. The distinguished participants of the Seminar will make presentations dealing with various aspects of the subject covering permissibility of ART according to Islamic ethics, sex selection, genetic screening of embryos, use of surrogate mothers, scientific and clinical research in ART, and social attitudes with respect to ART.

ISESCO and the World Islamic Call Society will publish the Proceedings of this Seminar in Arabic, English and French in order that a wider community of scholars may benefit from its deliberations.

We are grateful to the authorities of Al-Azhar University and Prof. Gamal I. Serour and his colleagues at the International Islamic
Center for Population Studies and Research for making it possible for ISESCO and the World Islamic Call Society to organize this Seminar here.

ISESCO is very happy to co-sponsor the present Seminar with the World Islamic Call Society. We have, in the past, jointly implemented various activities for upgrading the scientific and technological capabilities of the Muslim countries. We look forward to undertake further cooperative activities with the World Islamic Call Society.

We once again thank you, Ladies and Gentlemen, for your presence here, and wish the distinguished participants of the Seminar complete success in their deliberations.

Before concluding, we once again express our deep gratitude to Your Excellency for gracing the occasion with your presence to inaugurate this Seminar.

May Allah crown our efforts with success for the benefit of our Ummah.

Wassalamu Alaikum wa Rahmatu Allah wa Barakatuh.
Praise be to Allah, God of the Worlds and Peace and Prayers be upon the best of His Creation, Prophet Mohamed (PBUH)

- Your Eminence Dr. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar Al-Sharif.
- Eminent Scholar Dr. Ahmed Omar Hashim, Rector of Al-Azhar University.
- Distinguished Participants.
  Peace, Mercy and Blessings be upon you all.

There is no exaggeration in saying that Al-Azhar University is the Ministry shapes the future because it sets the course for development and progress, not only in Egypt but also in the rest of the world. Al-Azhar has returned to its previous method of combining together different branches of knowledge related to the universe and to life in general as well as to religion, thus promoting both religious and worldly culture.

The scientific and technological wealth that is presently sweeping all over the world engenders radical and qualitative changes in mutual relations and interests. Moreover, in the wake of the present dramatic developments that are occurring at unprecedented pace in the field of information and communication, mathematics, electronics, genetic engineering and all relevant new ideas and relations, it is evident that cultural, economic and even military supremacy is no more measured by conventional criteria. However, there is a new equation for measuring progress which depends basically on the nature and ethics of human beings, their progress and ability to assimilate and use the components of their scientific and technological wealth and the ability to deal with it ethically. Specialists from different disciplines of development unanimously agree that human ethics is the most important component of comprehensive development. At present, it is the indicator of progress or backwardness. Many nations possess great wealth but are powerless and backward because they are short of ethically qualified human cadres. Ethics guides scientific technological progress to serve human welfare and enhances religious guidance. It shields man from going astray thus undermining his morals and destroying his civilization.
This meeting, which is a meeting of scholars, is a vital forum for listening to objective views based on research, science and knowledge with the aim of reaching recommendations that promote the interest of all Muslims spreading over five continents at both the local level and all over the Muslim World.

Praise be to God whom we ask for forgiveness and guidance.

Peace, Mercy and Blessings be upon you.
Prof. Dr. Ahmed Omar Hashem  
Rector of Al-Azhar University

Praise be to God, Lord of the Worlds and Prayers and Peace be upon the most noble of His Messengers, Mohamed, our honest and sincere Prophet, his kith, kin and companions.

Under the umbrella of Al-Azhar Al-Sharif and our historic University, and under the patronage of our professor His Eminence Dr. Mohamed Sayed Tantawi, Sheikh of Al-Azhar, we hold this Seminar which includes this blessed galaxy representing Al-Azhar University, the International Islamic Centre for Population Studies and Research, ISESCO, the World Islamic Call Society, the Ministry of Health and our guests. I greet you all whole-heartedly and wish to inform you that Al-Azhar University pledges to bear the responsibility of its Islamic and scientific mission while heading for a bright future. Al-Azhar University is revising, developing, up-dating and codifying all its curricula and programmes and scientific research centres. We have started, God willing, this revision and planning under the patronage of the Grand Imam who insisted to start from grade 1 in the primary stage of Al-Azhar with the aim of planning for a bright future. Al-Azhar University together with its institutes and all sectors are following the same course to prepare researchers for this task. Among Al-Azhar sectors are this University, its faculties and centres as well as the International Islamic Centre for Population Studies and Research which is convening this seminar today. This Seminar is held at a very appropriate time in view of the current developments in the international community in the scientific field, universities, and academic circles, research laboratories in technological fields, which the seminar felt necessary to consider. Among these events are, inter alia, the phenomenon of cloning and in-vitro fertilization as a result of developments in genetic engineering and science in general.

I would like to say that science is a double-edged weapon that could be used for constructive or destructive purposes. When it is used for the benefit of mankind, for saving time and medical treatment, it is used constructively. However, when it is used for the production of weapons of mass destruction that destroy all what mankind has produced, then it is not a useful science. When atheist scientists attempt to play havoc with God’s creation and rebel against it and try to make children or generations who do not have any genealogy, it is most unwelcome. We are duty-bound, through such seminars whose title start with the word ‘Ethics’ to apply Assisted-Reproduction Technology in the treatment of infertility.
We are confident that as long as science is well-protected from deviation atheist materialism and rebellion that destroy human values, it will be used for the service, welfare and treatment of mankind.

If children are the ornaments of this worldly life and if the highest aspiration of man is to have a son or a grandson - such a wish is granted by the will of God, not ours.

"To God belongs the dominion of the heaven and the earth. He creates what He wills (and plans). He bestows (children) male or female according to His Will (and Plan). Or He bestows both males and females, and He leaves barren whom He will; for He is full of knowledge and power." (Al-Shura: 59-50)

If man procreates, then it is for his own good, and if he does not, then it also for his own good because God and God alone knows what is best for man.

However, medicine - cure and treatment are ordained by religion. Prophet Mohamed (PBUH) said: "seek medication because the Almighty God created medicine."

In the light of the above, everything, except death, could come under the umbrella of treatment and medication and is subject to the ruling that whenever treatment is possible upon the consultation of pious honest qualified physicians, then it should be applied. Hence, this seminar on bioethics is convened to keep surgical operations and other medical practices from going astray, from the danger of mixing lineage and from the mistakes that may be committed by science in an attempt to serve humanity. In spite of the fact that science has elevated man as a result of developments in the technological revolution, it has turned the world into a global village and as result of its direct broadcasting it gathered the whole world in just one part. In spite of the foregoing positive accomplishments, man may be degraded if he attempts to misrepresent God’s creation or rebel against religion. Hence, this Seminar is convened to compile a manual to be used as a guide and reference to all physicians, research and medical centres that act according to the religious teachings, moral values of Islam with the ultimate aim of protecting science from going off track. Like the previous one¹, this manual has been assessed in Al-Azhar International Islamic Center for Population Studies and Research. It has not been

written by just one person, but it came as the fruit of a number of seminars and qualified experienced scholars in different noble disciplines in the field of religion and medicine. Hence, it will be, like the previous one, a valuable manual and reference with far-reaching impact on the whole world.

I pray to the Almighty God to guide us to success and to work sincerely and devotedly. I wish to thank His Eminence the Grand Sheikh of Al-Azhar and the distinguished guest of Egypt as well as all those who are present.

Peace, Mercy and blessings be upon you.
Dr. Nabil Nassar  
On Behalf of the Minister of Health

In the Name of Allah, Most Merciful, Most Compassionate  
- Your Eminence Dr. Mohamed Sayed Tantawi, Grand Sheikh of Al-Azhar;  
- Dr. Ahmed Omar Hashem, Rector, Al-Azhar University;  
- Dr. Gamal I. Serour, Director, International Islamic Centre for Population Studies and Research;  
- Ladies and Gentlemen;  
- Distinguished Scholars and Participants.

Please allow me at the outset to relay greetings and best wishes of Dr. Ismail Sallam who apologizes for being detained by unforeseen matters.  
Peace, mercy and prayers be upon you.  
Ladies and Gentlemen.

Every citizen is entitled to proper health care and sound body and mind. The broad concept of health implies taking care of social and psychological health of the individual. This concept also includes sound reproductive health. Sound reproductive health is a right and a basic need for having healthy offsprings. As a result of rapid scientific developments as well as development of modern facilities including medical science technologies, every citizen has the right to reap the benefits of such developments and to have easy access to them in order to enjoy a sound family life and a healthy psychological state.

Based on these principles, the Ministry of Health adopts several approaches to realize this concept. The first, for example, is to establish a number of health centres at the national level, i.e., not only in Cairo or other large cities but well-equipped specialized medical centres of international standards are also established in remote areas of Upper Egypt. Moreover, existing ones are being improved by introducing new technologies.

Another approach is evolving the concept of health care. Health care for women should not be limited to the narrow perspective of family planning but should expand to an integrated concept that covers her health from her birth throughout the different phases of her life which includes enjoying sound reproductive health.
This is achieved by improving all health services starting with primary health care. This calls upon the Ministry to develop its manpower not only by going into postgraduate studies and obtaining high academic degrees, but each physician, whether working in specialized or unspecialized health care services, should have his share of continuous technical and scientific training within the framework of a comprehensive strategy for the development its manpower through continuous education and training.

Another approach is to set regulations, use modern technology, modern equipment and new methods of treatment to safeguard man’s right to life, health care and dignity.

The Ministry cooperates with all universities, scientific institutions and research centres in an effort to improve scientific research, up-date training programmes and continuous medical education. This also includes improving work within specialized medical centres and centres of distinction which the Ministry has been planning as part of its comprehensive session not only through its programmes but also through an ad hoc body within the Ministry.

Undoubtedly, this important conference is held at a propitious juncture. Therefore, I hope that it will reach fruitful recommendations that we will strive to implement and use as guidelines. Peace, mercy and blessings be upon you.
His Eminence Prof. Dr. Mohamed Sayed Tantawi
The Grand Sheikh of Al-Azhar

His Eminence the Grand Sheikh welcomed the participants and expressed his pleasure for meeting such learned scholars. Such meetings, he said, provide us with useful knowledge. He mentioned that the individual always needs knowledge from other sources regardless of his academic degree. He quoted Imam Al-Ghazali’s wise saying that: "Any accomplished scholar in a specific branch of knowledge is but a student in another."

He expressed the importance of the meetings of scholars from different disciplines with the aim of cooperating, as ordained by the Almighty, and explaining to the people the proper course of action with regard to religion and in their worldly life with the ultimate aim of promoting happiness and progress of the Ummah.

He stressed the importance of this Seminar and issues it deals with and that he is looking forward to hearing the relevant views of specialists from the fields of medicine and ‘Sharia’. After reviewing the themes of the Seminar and their relevance, His Eminence stressed the importance of cooperation between jurists and physicians in this field as such cooperation will lead to sound views based on sincere intentions.

Islam, His Eminence explained, is characterized by transparency. It is a clear unequivocal creed in every respect. For example, there is no more difference of opinion on the issue of family planning after it has been thoroughly explained and understood. Islam supports family planning whenever necessary. This necessity is decided upon by the married couple after consulting a qualified physician. He stressed the importance of discussing the various issues moderately and objectively to achieve sincere and legitimate purposes.

In conclusion, His Eminence thanked Al-Azhar University and all its staff members as well as the International Islamic Centre for Population Studies and Research, The Islamic Educational, Scientific and Cultural Organization (ISESCO), the Ministry of Health and all participants who came from different parts of the Muslim World.
Introduction:

Bioethics is the study of ethical issues arising in health care and the biological sciences. It also includes the study of social, legal, economic and religious issues related to these ethical issues.

Reproductive health is defined as a condition in which the reproductive process is accomplished in a state of complete physical, mental, and social well being. Reproductive health is not merely the absence of disease or disorders of the reproductive process (1). The reproductive choice of a person is his right to choose his/her reproductive performance including his/her reproductive potentials. Though reproductive choice is basically a personal decision, yet it is not totally so. This is because reproduction itself is a process which does not involve the person who makes the choice alone. It also involves the other partner, the family, the society and the world at large. It is therefore not surprising that reproductive choice is affected by the diverse contexts, mores, culture, religion as well as the official stance of the different societies. The reproductive choice of the person not uncommonly may even conflict with the interest of his or her own society. In reproduction, one cannot always have what he or she chooses to be done within his/her own society or country (2). Every day many people fly over or cross the borders to fulfill a reproductive choice which may not be permitted in their own societies or countries. Such an act is by no means restricted to one country or to followers of one religion. Many couples fly over to Europe or different states in the United States to fulfill a reproductive choice which they cannot have in their own country or state.

Islamic Background:

Islam is a comprehensive system that regulates the spiritual as well as civil aspects of individual and communal life. It aims to develop the unique personality of the individual and a distinct culture for the community based on Islamic ideals and values. The teaching of Islam covers all the fields of human activity, spiritual and material, individual and social, educational and cultural, economic and political, national and international (3). Instructions which regulate
everyday activity of life to be adhered to by good Muslims is called "Sharia". The sources of Sharia in a chronological order are: The Qur'an, the Sunna and Hadith (which is the collection of traditions and sayings of the Prophet developed by jurists over time), the unanimous opinion of Islamic scholars or Aima (Igmaa), and finally analogy (kias) which is the intelligent reasoning by which to rule on events the Qur'an and Sunna did not mention, by matching against similar, or equivalent events already ruled on.

If an instruction on a certain issue is mentioned in Qur'an, it is the one which should be followed. Sunna is resorted to if the issue is not mentioned in Qur'an. The opinion of Aima is the source of Sharia, if the issue is not mentioned in either Qur'an or Sunna. Finally, religious leaders can decide the Sharia for issues not mentioned in Qur'an, Sunna or by Aima simply by analogy.

The Sharia is not rigid or fixed except in a few legislation such as worship, rituals and codes of morality. It leaves attitude to adapt to emerging situations in different eras and places. It can accommodate different honest opinions as long as they do not conflict with the spirit of its primary sources, and are directed to the benefit of humanity (4). The Sharia classifies all human actions without exception into one of five categories, namely obligatory, recommended, permitted, disapproved, but not forbidden and absolutely forbidden. Even if the action is forbidden it may be undertaken if the alternative would do harm.

Reproductive Pattern in Muslim World:

The total Muslim population in the world in the year 1990 was 1.225 billion, mostly residents in developing countries. According to world fertility survey in 1980, in developing countries, 24% of the population are women in the reproductive age. Muslims are the most rapidly growing population in the world. It takes Japan 141 years to double its population while a Muslim country takes only 23 years to do so. It is expected with the present rate of population growth, that the Muslim population will be 2.5 billions in the year 2020. (5)

The demographic characteristics of the Muslim world clearly shows that in the Muslim world the population pyramid is upside down and most of the population are young dependents under 15 years of age and mostly living in rural areas. The Muslim World features a great variety of societies and economics, varying from highly developed states with a high per capita income to less developed nations in which a large proportion of the population finds difficulty in satisfying basic needs. Consequently, the impact of
population growth is not the same in all Muslim countries. It varies between: high but affordable growth, high with indifferent awareness, and high and unaffordable. The infant mortality rate (IMR) is more than 100 per 1000 live births in most Muslim countries. In developed countries as in Japan it is 7 per 1000. The maternal mortality is also very high in Muslim countries. It is almost 50 times as great as in Japan. In Egypt maternal mortality was reported recently to be 174 per 100,000 while in some developed countries it is less than 10 per 100,000. (6) The life expectancy is very low in Muslim countries. The figure is about 55 years. In developed countries it is above 70 years. (5) The reproductive behaviour of the Muslim world is characterized by: early marriage, too early pregnancy, too late pregnancy, too many pregnancies, too close pregnancies and lack of family planning.

Contraceptive prevalence rate (CPR) varies between 8% - 30%. Rarely it increases to 45% in few countries.

Although estimates of the prevalence of infertility are not very accurate and vary from region to region, approximately 8-10% of couples experience some form of infertility problems during their lives. When extrapolated to the global population, this means that 50-80 million people may be suffering from infertility (7,8). It is expected that 29.4-44.1 million of these infertile couples are Muslims due to a relatively high prevalence of infertility of 10-15% among Muslims in developing countries (9,10). The rate of tubal occlusion in Sub-Saharan Africa with a predominant Muslim population was over three times that in other regions, with the exception of the Eastern Mediterranean (8). All the developing countries, where most of the Muslim population is located, had rates of tubal infertility higher than those in the developed ones. The patterns of male infertility are less clear, but regional variation is seen in the rates of varicocele and accessory gland infection (8). Different modalities of medically assisted conception (MAC) are among the different therapeutic measures, available today, for couples with tubal or male infertility. Sometimes, MAC is the only available method for the treatment of these conditions specially in advanced tubal factor and severe forms of male infertility. In both situations the choice of treatment of the couple and their treating physician is governed by availability of the method, success rate, implications and complications involved, cost, social, legal and ethical aspects of artificial reproduction and success rate. The success rate of artificial reproduction is of particular importance because of the misconceptions which the public not uncommonly has about the results of the technique, being misled by the mass media and dishonest advertisements.
Family Planning Perspectives:
Islam is a religion for planning, development and moderation. Though contraception is allowed in Islam, yet only few use this license properly. No Qur’anic text explicitly forbids prevention of conception. Islam encourages breast feeding up to two years as mentioned in Qur’an and sayings of the Prophet. Breast feeding is a natural method of contraception.

The Prophet (PBUH) allowed some of his followers to practice "withdrawal". Taking by analogy, methods of temporary contraception available today would be permitted provided they cause no harm and temporarily prevent conception.

Since the Qur’an says nothing about contraception and there is nothing like the Christian concept of "Church" in Sunna and Islam, there exists no Islamic attitude independent or above that of the jurists. Most scholars of the Prophet’s traditions "Hadith" agree that permission was granted (11,12). The religion does not object to contraception, so long as the methods are used within its teachings, prescribed by trustworthy physicians, and cause no harm (13). El-Ghazali added that prevention of conception is accepted if the motives for the act are any of three namely; desire to preserve a woman’s beauty or her health or save her life, desire to avoid financial hardship and embarrassment, or avoidance of other domestic problems caused by a large family (14). There is no doubt that the earliest followers of the Prophet practiced contraception. The practice was within the knowledge of the Prophet and he did not forbid it. Other methods were not known or used in their time. If we reason by analogy, the alternate method should be as harmless as withdrawal.

Clear distinction is made between avoidance of conception and abortion. Al-Azhar document on the Draft programme of Action of the International Conference for Population and Development ICPD, Cairo 1994 had indicated that abortion is only performed to save the life of the mother (15). Sterilization is not permitted as it causes permanent loss of fertility. However, it is permissible if it is performed to preserve the health and life of the mother or to prevent a disabling hereditary disease (11,12).

Rejection of child spacing and family planning on the basis of undocumented religious background has always been an obstacle for implementation and progress of family planning programs in the Muslim countries.
Infertility Management Perspectives:

MAC, whether in vivo or in vitro, has separated the bonding from the reproductive aspects of sex. This challenged the age-old ideas and provoked discussion. MAC involving a third party has created and provoked debate, disagreement and controversy among all societies and religious sectors all over the world, Philosophical and religious debate continues till today.

MAC was not mentioned in the primary sources of Sharia. However, these same sources have affirmed the importance of marriage, family formation and procreation (16,17). Also, in Islam adoption is not acceptable as a solution to the problem of infertility (18).

In Islam infertility and its remedy with the unforbidden methods is allowed and encouraged. It is essential if it involves preservation of procreation and treatment of infertility in one partner of the married couples (19). This is applicable to MAC, which is one line of treatment of infertility. The modern techniques of MAC, including micromanipulation of the oocytes to facilitate fertilization, are no exceptions. The prevention and treatment of infertility are of particular significance in the Muslim World. The social status of the Muslim woman, her dignity and self-esteem are closely related to her procreation potential in the family and in the society as a whole. Childbirth and rearing are regarded as family commitments and not just biological and social functions.

The basic concept of Islam is to avoid mixing genes, as Islam enjoins the purity of genes and heredity. It deems that each child should relate to a known father and mother. Adoption is not allowed, as it implies deceit of children about their true genetic linkage and heredity. However, this does not imply withholding kindness caring, helping and upbringing orphans. It only implies that one should not give them his name. Based on the opinions accepted in the Muslim world and relying on the views of Fuqaha’a, physicians, ethicists, lawyers and specialists, one may conclude the following:

1. Screening of potential candidates for utilization of MAC: The physicians should limit access to MAC where clinical circumstances present significant risks to potential offspring. This should be on the grounds of conscience and not on any social discrimination (20,21).

2. Since marriage is a contract between the wife and husband during the span of their marriage, no third party intrudes into the marital functions of sex and procreation (19, 20, 21, 22).
3. A third party is not acceptable whether he or she is providing a sperm, ovum, an embryo or a uterus (21).

4. If the marriage contract has come to an end because of divorce or death of the husband, artificial reproduction cannot be performed on the female partner even using sperm cells from the former husband (19,21,22,23).

5. Cryopreservation: The excess number of fertilized ova (pre-embryo) can be preserved by cryopreservation. The frozen pre-embryo is the property of the couple alone and may be transferred to the same wife in a successive cycle but only during the validity of the marriage contract (21).

6. Multifetal pregnancy reduction: Multifetal pregnancy reduction is only allowed if the prospect of carrying the pregnancy to viability is very small. It is also allowed if the life or health of the mother is in jeopardy (21,24,25).

7. Surrogate motherhood: Though at a time it was allowed, (26) the present status in the Muslim world is that surrogacy is forbidden (۱۲).

8. Pregnancy in the Postmenopause: Medically Assisted Conception allows postmenopausal women to become pregnant and have children of their own. Pregnancy in the postmenopause appeals to egalitarians as it is just for old women to have children since older men have always been able to father children. However, the issue is not that simple. Men are not directly involved in the process of pregnancy, childbirth and to a great extent in the process of mothering the newly born child at least in the first few months of life. Such physiological processes no doubt task and exhaust the postmenopause and may be unjust to the child as it violates the rights of the newly born child in getting his or her share of adequate love, care and tenderness provided by younger mothers. For all these reasons ethical issues are to be discussed concerning the suitability of older women as mothers.

Pregnancy in the postmenopause, at least at present, involves ovum donation, increased maternal risks and problems with rearing of the child.

Pregnancy in the postmenopause using donated ova is ethically unacceptable in the Muslim world. Apart from mixing genes it exposes mothers to increased maternal risks and complications and is rather unjust to the newly born child. Pregnancy in the postmenopause using couple’s frozen embryos is associated with increased maternal risks and needs further evaluation. (27, 28).

9. Embryo Research: The main ethical concern has been the alleged immorality of using embryos for research purposes. However, embryo research has nonprocreative interests, which include
improvement of knowledge in treatment of infertility, improvement of contraception, treatment, and prevention of cancer birth defects.

Embryo research denigrates the importance of human life by treating embryos as means rather than ends. Embryo research could harm children if the embryos used in research are then placed in the uterus of a woman (29).

The ethical concerns which surround embryo research include creation of embryos solely for research purposes, limits on purposes of embryo research, transfer to the uterus after research and keeping embryos alive in vitro for more than 14 days.

Research would occur only on spare embryos created as by-products of IVF treatment of infertility. However, the wide use of cryopreservation of extra embryos has limited the number of embryos donated for research.

Embryo research had been discussed in depth at the first International Conference on "Bioethics in Human Reproduction Research in the Muslim World", held in Cairo, December 10-13, 1991 (21,23).

The participants endorsed the following statements on this issue, guided by previous recommendations and the recent development in this rapidly developing scientific field:

a. Cryopreserved pre-embryos may be used for research purposes with the free informed consent of the couple.

b. Research conducted on pre-embryos should be limited to therapeutic research. The treated pre-embryos shall be transferred only to the uterus of the wife who is the owner of the ova and only during the validity of the marriage contract. This should be applicable to research involving microsurgical techniques as sperm pronuclear extraction to correct polyspermy (30) and genetic diagnosis of a portion of the embryo, one blastomere or its nucleus for a specific genetic defect (31).

c. Research aimed at changing the inherited characteristics of pre-embryos, including sex selection, are forbidden.

d. The free informed consent of the couple should be obtained before pre-embryos are subjected to nontherapeutic research. These pre-embryos are not to be transferred to the uterus of the wife or that of any other woman.

e. Research of a commercial nature or those not related to the health of mother or child are not allowed.
f. The research should be conducted in research institutes of sound repute such as specialized research institutes. The research should have medical justification and should be conducted by a skilled researcher.

Respect for the origin and human character of the fertilized ovum (pre-embryos) dictates the restrictions placed on the research conducted on them. Research should be conducted with specific goals on a very limited scale and under strict control.

10. Gene Therapy: Genetic research on human pre-embryos is part of medical research in general and the ethical requirements and rules of medical researches should apply to them (32).

There are four well-known categories of human gene therapy which are helpful to delineate and focus the ethical gene therapy discussion (26,34,35). These include somatic cell gene therapy, germ line gene therapy, enhancement genetic engineering whether somatic cell enhancement or germ line enhancement, and eugenic genetic engineering.

Genetic manipulation is desirable to remedy genetic defects. Serious ethical questions begin to arise at the borderline cases when the aim of genetic manipulation shifts from therapy to the creation of new human type (36).

From a Muslim perspective human gene therapy should be restricted only to therapeutic indications. Somatic cell gene therapy is encouraged as it involves remedy and alleviation of human sufferings. However, enhancement genetic engineering or eugenic genetic engineering would involve change in the creation of God, which may lead to imbalance of the whole universe and should be prohibited (32). Gene therapy to manipulate hereditary traits such as intelligence, stupidity, stature, beauty or ugliness is a serious attempt, as it may imbalance the life of man (37).

Bioethics in Reproductive Health (R.H.):

Any debate on the social, legal and ethical issues surrounding R.H. must consider these new techniques within the general context of reproductive health care. In providing this new technology one must respect the dignity of human beings, security of human genetic material, inviolability of the person, inalienability of the person and necessary quality of services. These principles demand a measure of protection for the human embryo that is consonant with national,
cultural, religious and social mores. Ethical discourse is necessary for any society to form its responses to any scientific or medical innovation (27, 28, 38).

The four ethical principles involve the traditional principles of justice, autonomy (respect for persons), beneficence (duty to a good) and nonmaleficence (avoid harm). There are two ethical levels concerned: the microethical and macroethical. The microethical level applies to relations between individuals. The macroethical level applies to relationships among communities themselves and between communities and their members (39).

There are three moral principles which provide an ethical basis for reproductive health management. The principle of liberty, which guarantees a right to freedom of action; the principle of utility, which defines moral rightness by the greatest good for the greatest number; and the principle of justice, which requires that everyone have equal access to necessary goods and services. However, one must remember that ethics and morality are only valid when individuals can act freely. Medical ethics are based on the moral, religious and philosophical ideals and principles of the society in which they are practiced (38). It is therefore not surprising to find that what is ethical in one society might not be ethical in another society. It is mandatory for the practicing physicians and critics of conduct to be aware of such backgrounds before they make their judgment on different medical practice decisions (40). The ethical attitude of the individual is colored by the attitude of the society which reflects the interest of theologians, demographers, family planning administrators, physicians, policymakers, sociologists, economists and legislators. Responsible policymakers in the medical profession in each country have to decide on what is ethically acceptable in their own country, guided by international guidelines, which should be tailored to suit their own society. Truly ethical conduct consists of personal searching for relevant values that lead to an ethically inspired decision (41). Those for whom religion is important - and it is so for Muslims - need to distinguish between medical ethics and humanitarian considerations, on one hand, and religious teachings and national laws, on the other hand. The physician is always concerned about the legal basis of his acts undertaken on the basis of ethical precepts.

Most of the Muslim countries operate under guidelines issued by a voluntary religious or other organizations. Some of these organizations are rather prestigious and their guidelines have an impact in most if not all Muslim countries. The important guidelines issued in this area include Al-Azhar Mosque Fatwa (1980), Islamic Fikh
REFERENCES:


17. Hadith Shareef, reported by Bukhary and Musalam.


STAND OF ISLAM AS REGARDS THE TREATMENT OF INFERTILITY AND THE MODERN ASSISTED REPRODUCTIVE TECHNIQUES
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We must first elucidate an important point that of genuine infertility caused by the loss of the fertile reproductive gland (that of the man or of the ovary of the woman) as a result of a disease, extraction or hysterectomy, thus incurable.

This is referred to in the Holy verse: "To Allah belongs the dominion of the Heavens the earth. He creates what He wills. He bestows (children) male or female according to His will, Or He bestows both males and females and He Leaves barren whom He wills: For He is full of knowledge and Power." (Consultation, 49-50).

Infertility is a common case, due to either man or woman or to both of them which often allows for treatment. The Holy Prophet (PBUH) said: "O ! Servants of God, seek a cure, because for every ill, God has provided a cure, save old age." (Bukhari, Muslim, Abu Dawud, Turmuzi) The Prophet (PBUH) also said: "For every ill God has prescribed a cure." (Bukhari).

To wish for a good progeny is a legitimate desire inherent in man. The Prophets (peace be upon them) shared that desire. Zakariah (peace be upon him), although he and his wife were old, wished for children. He appealed to the Almighty: "O' my Lord! Infirm indeed are my bones, and the hair of my head doth glisten with grey: But never am I unblest, O' my Lord, in my prayer to Thee! Now I fear (what) my relatives (and colleagues) (will do) after me:

But my wife is barren: So give me an heir as from Thyself. (One that) will (Truly) inherit me, and inherit the posterity of Jacob; and make him, O' my Lord! One with whom Thou art Well-pleased." (Mary, 4-6)

"And the angels called to him as he stood praying in the sanctuary: Allah giveth thee glad tidings of (a son whose name is) Yahya to confirm a Word from Allah, lordly, chaste a prophet of the righteous." (Al-Imran, 39)
The believers appealed thus to God: "Our Lord! Grant unto us wives and offspring who will be the comfort of our eyes, and give us (the grace) to lead the righteous." (Al-Furqan, 74)

And at the age of 40, the believer says: "O my Lord! Grant me that I may be grateful for thy favour which thou hast bestowed upon me, and upon both my parents, and that I may work righteousness such as Thou mayest approve; and be gracious to me in my issue. Truly have I turned to Thee and truly do I submit (to Thee) in Islam." (Al-Ahqaf, 15)

Treatment of infertility is therefore an inherent urge generated by a keen desire for survival and is as well enjoined by Shari’a.

However, procreation is governed by specific conditions and not left unrestrained; it must occur within the bonds of matrimony. In case of divorce or widowhood, there cannot possibly be any procreation for any of these spouses through any new pregnancy.

Marriage is a contract between a man and a woman, or could be concluded by a guardian or representative, but remains a contract between two people: a man and a woman. If a third party is involved in procreation, procreation becomes vitiated. By third party, we mean a sperm or an ovum donated or provided by a man or woman or a fertilized zygote, sometimes called early embryo. (it is no embryo as the embryo must be safely hidden in the uterus); it could also be a loaned uterus so-called surrogate motherhood. Let us now discuss each of these cases in detail.

1. Donated or provided sperm: so-called sperm banks to be often found in several European countries, in the United States and elsewhere. The sperm is taken from a donor (against a remuneration or freely donated), kept in special refrigerators, set at -178º by means of liquid nitrogen, after checking the donor for venereal diseases: AIDS, syphilis, gonorrhea, etc. After sorting and classifying it, it is injected in the uterus of the woman who asked for it and whose husband (if any) lacks spermatozoon.

There are even firms in the United States who purchase the sperms of geniuses, famous sportsmen and well-known artists and sell them to women, after publishing the relevant data in special revues providing the specifications of each donor. This is the old Jahiliya practice called "Istibda'a" (intercourse by choice for ideal progeny). In a Hadith quoted by Bukhari, in his book on marriage, Sayeda Aisha, the wife of the Prophet (PBUH), describes it as follows: The man does not
have any intercourse with his wife and tells her to go to so and so and lay with him. The husband does not approach her until she is proven pregnant by that man known for his courage, bravery and intellect, and the child is ascribed to her husband. This is what occurs to-day in the west, and the old Jahiliya custom is revived under the guise of modern civilization!!

Sperm banks proliferate in the United States in particular, and millions of children have been conceived in that manner in various parts of the world.

2. In-vitro (oocyte): they are donated by a woman to another through a hospital or a specialized clinic involved in the treatment of infertility!! The donor could be a mother or a sister and this complicates matters further. The donor could give birth to her sister or to her grand daughter, thus causing geneological confusion, vitiating values and unsettling criteria because of medical progress dissociated from ethics.

Fertilized zygote or so-called test tube embryo: The operation is carried out in various ways, inter-alia:

a) An agreement is concluded between the two barren spouses and the infertility treatment center. The sperm of a man and the ovum of a woman are fertilized in a test tube and given to the barren woman to be injected in her uterus.

b) The sperm of the husband fertilizes the ovum of a woman (not his wife), that of a donor or against payment, and is injected in the uterus of the wife who becomes pregnant and whose embryo is composed of the sperm of her husband and the ovum of another woman.

c) The man commits adultery with a fertile woman. The infertility treatment center tries to recover the zygote from the uterus on the fifth day. The "lavage"- or washing of the uterus - and the zygote is injected in the uterus of the barren women.

d) It is common practice to keep the remaining zygotes in in-vitro projects for couples who cannot conceive, usually due to tubal blocks in the wife. (There are various other reasons to utilize an in-vitro process). The sperm of the husband is processed and the ovary of the wife in energized with hormones, then the sperm is fertilized by a great number of ova, through a microscope or sonar (which is more common nowadays).
The center fertilizes some 20 or 30 appropriate ova and the rate of fertilizing success is 80%. The doctor chooses three or four ova to inject in the wife's uterus. The unused zygotes remain in the liquid nitrogen at the same degree of refrigeration (-178%). If the first attempt fails, another set of zygotes can be injected, falsely labeled ready-made embryo.

Since the success of pregnancy in in-vitro cases is very low, 15% in the best centers (the operation is called "take home baby") infertility treatment centers fertilize a great number of the ova of the wife to reduce costs and sufferings. All such centers in the Kingdom of Saudi Arabia apply that technique.

The problem arises when pregnancy occurs at the first or second attempt and the spouses do not return. In Britain, for example, these centers accumulated over 5000 zygotes and, for five years, there was no demand for them. These zygotes are generally procured by people from the Middle East or overseas who had come to Britain to seek treatment for infertility. Having disbursed large sums, they returned home unsuccessful and had no longer the means to return to Britain for another attempt.

British law has set a limit of five years to keep such zygotes after which they have to be taken out of refrigeration and destroyed.

The press and the media protested loudly, demonstrations started and the church entered the arena: How could you kill those embryos?!! (they are not embryos, as we said, neither linguistically nor medically). Those plagued by infertility asked for the use of such embryo and ethical theorists demanded the adoption of these zygotes!!

The crisis aggravated, ethical committees were set up, and the case will be brought before the Royal college of Physicians, the Parliament and the Council of Churches. Pressmen, jurists, literary men and philosophers are also involved!!

However, law is law, in Britain in particular, and should be enforced until amended. These centers have therefore destroyed, according to the media, 5000 embryo in August 1995.

4. **Surrogate motherhood**: a woman lends her uterus (in fact against payment) in which is injected the zygote of a couple. (The ovum could be that of the wife and the sperm that of a donor or vice-versa). When she delivers, the baby is given to the parents.
The United States agreed to the establishment or firms to sell or rent uterus by virtue of contracts, which can go as high as US $ 15,000!! Britain and Europe refused to condone such trade and condemned it. The Parliamentary Warneck Commission authorized donation and rejected sale, deeming contracts null and void and could not be invoked before courts. The matter is still under consideration!! The struggle is still ongoing between those who condone sale and those who only agree to donation. In both cases, problems arise, the surrogate mother sometimes refuses to give up her baby.

The Almighty sayeth: "Mothers shall suckle their children," and "the mothers are those who gave birth to them." How can you tell a woman who bore a child and delivered it: "This is not your child, you are just a container in which the embryo grew." The baby is given to his biological parents, the husband having provided the sperm and the women the ovum.

Laughable and sad issues. Refrigerated embryos are kept for five years (Britain by virtue of law) or ten years (Australia by virtue of law) and the divorced or widowed women are allowed to use them after divorce or widowhood. There was the famous case of the rich couple who died after the failed first attempt and the embryos were kept under refrigeration. The court then decided to inject them in the uteri of women donors or against payment so that the babies could inherit. Two embryos were injected and the children were born after the death of both parents.

What a farce! Children are born to parents who have long ago died and whose bones have turned to dust!

Islam rejects such ridiculous nonsense in the realm of procreation. Renowned scientists have looked into the matter and rightly concluded that procreation should occur within the bonds of matrimony through the sperm of the husband and the ovum of the wife, without involving a third party, whether donor or seller; they also rejected surrogate motherhood. Fiqh faculties have clearly forbidden the use of sperm, ova or zygote banks which cause geneological confusion and create chaos in the west bringing about dire troubles.

We call for abidance by those Shari'a Fatwa and demand the closure of sperm and embryo banks. They are a dangerous enterprise despite the apparent benefits, namely the alleviation of the financial, psychological and physical burden for the couple who have to endure in-vitro attempt after attempt.
The learned Fuquha'a have looked into the matter under all its angles and have perceived the dangers to geneology, whether deliberately or from oversight. They issued their verdict so that the treatment of infertility does not give rise to chaos in procreation as can be witnessed in the west to-day.

God Almighty leads to the straight path.
ETHICAL REPURCUSSIONS OF THE USE OF PROCREATION TECHNIQUES ASSISTED BY TECHNOLOGY IN THE TREATMENT OF HUMAN INFERTILITY

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In the Name of Allah, Most Merciful, Most Compassionate

Introduction:
Infertility affects from 10-20% of spouses due to various factors: male factor 40%, female factor 40% and 20% of the cases involve the two spouses. Tubal blocks and pelvic adhesions are at the origin of 20-30% of females factors according to the geographic region or to the propagation of infectious venereal diseases. Such cases were in the past treated surgically with varied success according to the type and severity of the adhesions and the skill of the surgeon. In severe cases, the rate of success was less than 10% and there was therefore need to seek a better solution. Scientists in all biological and genetic fields carried out experiments in laboratories and clinics until we arrived at in-vitro and direct insemination under microscope methods.

The world was agog to the possibility of test tubes fertilization which was tried successfully on rabbits in 1959. The British scientist, Robert Edwards, developed the idea to try it on man in cooperation with his colleague, Professor Steptoe. After several experiments, the first test tube baby - a girl - was born in 1978. Since then, further developments and progress followed one another until it became a science per se for which scholarships are provided and specialized seminars organized. In the late 80's, the American scientist, Hech, added another landmark in the technology of assisted reproductive technique that of various direct insemination methods.

Since in-vitro projects succeeded in treating cases of tubal blocks and cervical adhesions, they were used to treat other infertility cases such as endometrium problems, the infertility of men and cases of unknown causes. Success in the treatment of men infertility is low, about 5% as compared to 20-30% in other cases.

With new developments in intracytoplasm sperm injection (ICSI), the American scientist, Suzan Lanzendorf, scored her first success at fertilization in 1985. This success was followed by that of the Belgium team, led by scientist Palermo and Van Stirtegham, who brought about the first pregnancy in 1992, through ICSI.
Developments and research are ongoing in these distinct scientific and research fields.

**Ethical Repercussions of Assisted Reproductive Techniques in the World:**

With the rapid developments in this wide-ranging field, some social, psychological and religious issues have arisen generating a great deal of trouble and divergences in dealing with any new outbreak in this science. We are fully aware of the difficulty of this issue in the west which lacks any religious commitments or arguments, existing in a religious void and entrenched in secularism, a principle on which are founded legislation and regulations.

With a view to containing this ethical crisis, a number of committees or organs have been set up in some western countries to codify this scientific revolution and lay down basic organizing rules therefore. These organs disappeared in other countries such as Italy and in the Far East. The nature of these organs varies: they are either official - as in Britain - where they unfortunately hampered scientific research and training; or professional consultants, as in the United States and Canada. In addition to specialists in this field, the committees comprise a number of religious personalities, jurists, moralists, psychologists, etc. in order to arrive at an opinion that reflects the views of the society of these countries. This conceptual and ethical chaos does not exist in our Muslim society because of the abiding source of the Shari’a of Islam: The Book of Allah and the Sunna of His Prophet (PBUH). However, given the rapid changes and the sensitivity of these scientific developments and in order to ascertain their compatibility with our Muslim society, there was need to organize a meeting grouping doctors, scientists and men of the cloth to exchange views on this ever-evolving field, arrive at religious Shari’a solutions to this issue and all its ramifications and clarify all aspects to both doctor and patient.

**Assisted Reproductive Techniques in Kuwait:**

After the successive success of in-vitro projects in several countries of the world and having ascertained the compatibility of the technology with Shari’a, the Ministry of Public Health decided to set up the first in-vitro center in Kuwait at the obstetrics hospital in 1987, and Dalal, a girl, the first test tube baby was born in Kuwait. The Ministry ensures the training of the medical and technical cadres so that they may carry out their tasks at best.

The In-vitro center provides its services to about 2000 couples and wife referred from medical centers and hospitals. The centers deal
annually with 200-300 in-vitro fertilization (ICSI) cases, and over 1000 cases of artificial insemination. Its results compare with those achieved worldwide in this field. We have recently used the sperm directly extracted from the epididymis of the testicles for injections by microscope to treat the infertility of men with satisfactory results.

Two in-vitro centers were recently set up in private sector hospitals which are supervised by a committee from the Ministry of Public Health. This committee authorizes the establishment of such centers and licenses their establishment. It supervises them directly and periodically follows-up their performance.

Patients are referred from hospitals to the centers having undergone the needed treatment and completed all analysis in these hospitals. Upon arrival at the center, the medical history of the transferred patient is compiled, he undergoes a clinical examination, all laboratory analysis are performed and treatment is prescribed. At the in-vitro laboratory, all personal data is checked and the names of the husband and wife figure on all samples. A single technician is entrusted with the injecting and follow-up of one case at a time to ensure the safety of the sample.

The patient is followed up after the injection of the embryo in the uterus. Once pregnancy is ascertained, a scrupulous follow-up is maintained until delivery. A file is kept for each case with all details, including the follow-up of the baby after its birth so as to periodically review cases and results.

Work is ongoing to upgrade this center and train technical cadres in all new developments in this ever-evolving field.

Participation in this seminar will help to arrive at Shari'a solution to relevant controversial aspects, as we have among us the doctor and the man of the cloth.

Our best wishes for success to this seminar and other similar gatherings at the service of Islam and the sons of the blessed Islamic Ummah.
Praise be to the Almighty who honored man by creation, morality and kinship: "Verily, We have created man from clay; then set him as a seed in a safe lodging; then fashioned We the seed a clot, then fashioned We the clot a tissue, then fashioned We the tissue bones, then clothed the bones with flesh, and then produced him as another creation. So blessed be Allah, the fairest of creators!" (The Believers, 12-14).

The Prophet (PBUH), the gift of mercy, the elite of the elite, the noble geneology said: "God created men and gave me life amongst the best of them, the best party and the best of the two; He chose tribes and set men in the best of them. He then chose families and gave me birth in the best of families. I am the best in spirit and the best in religion." (Turmudhi).

Let us commend the worthy efforts of the Islamic Educational Scientific and Cultural Organization (ISESCO) for the convening of this opportune seminar, its excellent organization and its lofty human dimensions.

Your Excellency, the Chairman of the session,
Your Eminences,
The Ulemas in Fiqh, Medicine and Wisdom,
Distinguished guests.
Assalamu Alaikum wa Rahmatullah wa Barakatuh

It is a pleasure for me, at the outset, to convey from this rostrum, on behalf of Tunisia, the new era, my profound gratitude and appreciation to the cogent president, the wise government and the deep seated people of the Arab Republic of Egypt for their sponsorship of this seminar.

Moreover, it is an honor for me to convey to you the best wishes of your sister country, Tunisia the green, the country of security and long-standing peace in the Muslim Ummah, which takes pride in its
godliness and the fraternal bonds that emanate from its creed upheld over the centuries.

Tunisia is deeply grateful to ISESCO for its kind invitation to participate in a meaningful manner and with a sound Fiqh knowledge in the work of this seminar.

Distinguished participants,

The nature of the subject matter of this scientific seminar, at whose origin we perceive a profound faith, an enlightened mind and a truly noble purpose, is a genuine strive to ensure to man a structured progeny, protect his entity, safeguard his morality, maintain the dignity of his family and immunize his society, in an era of scientific excesses. It seeks to include ethics in the practice of medicine in the field of genetics and in the control of fertilization and procreation, motivated by the development of modern technology and the emergence of the concept of medical experiments on man. I shall, in this connection, focus on two items on the agenda of this seminar:

FIRST ITEM:

1. Assisted Reproductive Techniques as a means to Treat Spouses Affected by a Type of Infertility and its Criteria and Rules from an Ethical and Islamic Perspective:

   The nature of the subject matter dictates the recall of the following fact: Allah ordained that, based on a legal marriage, the family was the foundation of human life and of the civil human society. One of the purposes of the family is to safeguard genealogy and establish parenthood, its main lines and branches: fatherhood, motherhood, sons, relatives, clan, and the Ummah.

   The Almighty sayeth: "O mankind, fear Allah who created you from a single soul and from it created its mate and from them twain spread a multitude of men and women. Fear Allah in whom ye claim (your rights) of one another, and toward the uterus (that bore you). Allah ever watches over you." (Women, 1).

   Allah also fated that the desire for a progeny be innate in fatherhood and motherhood: "The nature fated by Allah in which He hath created man."(Al-Rum, 30). Sons and daughters are a basic and important pivot in the composition of the family.
A child in the family is the first crop and the most lofty objective in the marital relationship; he renews the life of the parents and extends it; he safeguards the human race and ensures its continuity so as to develop the universe, exploit its bounties, build up social life and fashion civilization in all its dimensions. Regulated affairs of families in the Ummah are the basics of its civilization and the bulwark of its society.

**The Infertility Phenomenon in Family Circles:**

Given that background, we must conclude that infertility which plagues some spouses is a trial to which the Almighty, in His insight, subjects His servants: "*and he makes whom He will barren.*" (Counsel, 49).

Parenthood being denied, infertility is abhorred by families and attempts are made to treat it. The barren yearns for descendents and genealogy and seeks all possible solutions regardless of medical analyses or financial burdens. We have in the Holy Quran the case of the infertility of Zakariah's (PBUH) wife: "The mention of thy Lord's mercy into His servant Zakariah; when he called upon his lord secretly saying 'O my Lord, my bones are weak and my head is aflame with gray hair and I have never been remiss in praying to Thee. Lo! I fear my kinsfolk after me, since my wife is barren. Grant me a kinsman who shall inherit from me and from the house of Jacob. And make him, my Lord well-pleasing.' (It was said unto him) 'O Zakariah, We gave thee good tidings of a son whose name is Yahia. No namesake have We given him aforesetimes.' He said, 'O Lord, how can I beget a son, seeing my wife is barren and I have reached a declining old age? Said He' So (it will be). Thy Lord sayeth: *It is easy for Me, I created thee before, when thou wast naught.*" (Mary, 2-9).

Infertility is due to one of two causes:

1. Rooted infertility of one of the spouses or of the couple and is medically incurable: "*That was Allah's way with these who passed away of old.*" (Al-Ahzab, 38).

2. Momentary infertility that is curable when its causes are treated: cystic ovary, tubal block, cervicitis, oligospermia, etc. Those are cases that are nowadays medically treated assisted by modern technology which largely succeeded in bringing about fertilization outside the uterus (in-vitro fertilization). The question that arises then is the following:

Do religious principles, cultural customs and ethical values condone such scientific medical practices?

The answer hinges on the following considerations:
1) The rule is that fertilization should occur naturally in most cases, namely through legal intercourse. Ibn al-Arabi writes in his book "Ahkam Al-Quran": "Allah, in His Majesty, and His Might creates out of nothing and in His Benevolence and Great Wisdom creates something out of something, He created Adam from clay and Eve from Adam and created children from them, through pregnancy and delivery".

This is the system created by God. This is innate nature. The husband lays with his wife and pours his seed in her uterus. Islamic Shari'a shelters innate feelings and safeguards them, according to the Divine Law: "There is no altering (the laws of) Allah's creation." (Al-Rom, 30). Fertility, outside of cases of infertility, is thus far removed from medicine and technology. "What conforms to its source cannot be questioned".

2) Temporary infertility due to transient medical problems, treated with the assistance of medicine and technology to induce fertilization and pregnancy: fertilization of the ovum of the wife with the sperm of the husband, within or without the uterus. It is considered:

a) A necessity condoned by Islam which legitimates necessities in case of needs: "But he who is driven by necessity, neither craving nor transgressing, it is no sin for him." (Al-Baqarah, 173).

b) A benefit sought as it satisfies the urge for parenthood. The Shari'a Ulemas reasoned as follows: "Where there is benefit, it is a rule of Allah." Ibn Gayem al-Gozeya wrote in the same sense: "The very essence of Shari'a is wisdom and the interest of mankind in this life and in the Hereafter; Shari'a is all justice, all benefit and all wisdom."

c) A treatment approach. Islam does indeed legitimate treatment to alleviate sickness and relate reasons to their cause, in accordance with the Divine Laws of the universe. The Prophet (BPUH) said: "For every ill, Allah has prescribed a cure." and "There is a treatment for every ill, and if the treatment defeats the ill, the cure is secured, God willing."

We have in the Holy Quran directions for treatment, solace, hope, pleas and cure, and the Almighty teaches His weak servant to appeal to Him: "And when I sicken, then He healeth me." (The Poets, 80) Treatment means to seek cures, combat diseases and remove the causes of infertility assisted by science and knowledge as enjoined by Allah: "Read: and thy Lord is the Most Bounteous, Who teacheth by the pen, teacheth man which he know not." (The Clot, 1-5).
We may rightly quote in this connection the testimony of medicine. Dr. Jean Bernard, the honorary president of the French Committee for Ethics says: "If ethics mean a set of criteria adopted by groups or societies wishing to safeguard their sanity and balance, the ethics of biology seek to protect the human aspect of society under the growing sway of science and technology."

The answer is therefore as follows: In its tolerance, the Hanifa school authorizes the inducement of fertility through "in-vitro" technology to treat infertility if the following conditions are filled:

a) That artificial fertilization and insemination are performed within the bonds of matrimony; that the spouses are not separated by either divorce or death;

b) That the fertilizing sperm is that of the husband;

c) That the ovum to be fertilized is that of the wife;

d) That the zygote in the uterus of the wife is composed of her ovum and the sperm of her husband.

This is to ensure to the family the continuity of a climate devoid of the complications that usually perturb those who are denied a progeny, the adornment of life.

If Islamic ethics govern artificial fertilizing methods, the following objectives sought by Shari'a will be fulfilled:

1. To ensure that pregnancy brought about by fertilization techniques in cases of temporary infertility remains on a par with natural intercourse. Artificial fertilization is a significant civil gain generated by human civilization, in-depth scientific research and lengthy medical experiments. Mohamed al-Taher ibn 'Ashur, the scholar of his era, said: "True civilization is innate as it emanates from the mind in an innate process. Beneficial knowledge has at its origin this innate process. It emerges from the symbiosis of mind and thought. Discoveries are innate because they originate from thought. There is an innate desire to uncover the secrets of the universe."

2. To safeguard geneology so that children are ascribed to their parents. This is an innate rule, and one of the five basics taught by religion. That is why adultery is forbidden as emphasized by the Hadith of the Prophet (PBUH): "The child is the outcome of the marriage bed." To safeguard geneology is to safeguard the system of society and its continued soundness and that of mankind.
3. To maintain chastity in marital life. The Almighty sayeth: "And live with them in honour, not in fornication, nor taking them as secret concubines." (Al-Maida, 5). He refers to chaste wives, in the Holy verse: "They being chaste, not debauched not by loose conduct." (Al-Nisa', 25). Thus, Al-Bashir Hamza, President of the Tunisian National Commission for Medical Ethics, says: "Biological ethics, alike medicine, require greater spiritually to be at the service of man."

4. To ensure that man is trustworthy of the status granted to him by God. He endowed him with ability to seek virtues and shun vices, and with a brain to consider matters in terms of their objectives and how they compare with others. The Almighty sayeth: "We have honored the children of Adam and carried them on land and sea, and provided them with bounties and preferred them greatly over many of those We have created." (Al-Isra, 70).

5. To ensure that man fulfills his duties as caliphate in this world and does not corrupt the universe. Man cannot do this unless he is sound in body, in mind and in spirit and remains vigilant. The August Medical Institutions, faithful to their ethical values and Islamic authenticity, have taken all these facts into consideration, as regards test tubes babies, and Mr. Al-Bashir Hamza, a Tunisian medical cadre, comments as follows: "Biological ethics rest basically on respect of the individual and a research into his fate as regards matters touching upon his dignity, his privacy, his physical and mental safety; in other terms, his birth and life."

**Technical Background of Fertilization Outside Shari'a Criteria:**

The general purpose of Islamic Shari'a is to safeguard the system of the Ummah and secure its continued soundness through the soundness of man; in other terms to safeguard the innate nature and beware whatever might impair or imbalance it. Whatever safeguards its entity is a Shari'a duty, and whatever impairs it is forbidden. Hence:

1. Induced fertilization through a third party - outside of the spouses - whether sperm or ovum is forbidden. The test tube baby in such case, is illegitimate because of geneological confusion. Mahmoud Shaltout says in this connection: "It is tantamount to adultery; and it jolts man into the area of animal and plant and ushers him out of the human realm, that of the virtuous societies who weave their life with the legal marriage contract." As regards human purpose and ethics, it recalls the obnoxious habits of intercourse in Jahiliya times. Bukhari relates what Marwa narrated to him quoting Aisha, the wife of the Prophet (PBUH). She said: "There were four forms of wedlock in Jahiliya times: one is
similar to what we have to-day, namely a man asks another for his ward or daughter in marriage, pays her dowry and marries her. The second was the case of the man who told his wife to go to so and so and lay with him as soon as she was over her monthly course. The husband never touched his wife - if he wished to do so - until her pregnancy from the other man had been proven. The husband does so wishing for a son. Another type was for a woman to have intercourse with a number of men who impregnate her. Once pregnant and upon delivery, she calls for them and none dares to refuse to go. They meet at her house and she tells them: 'You know what happened, and he is your son'. Naming whomever she chooses. The child is ascribed to the man who cannot refuse. The fourth type was for a group of men to lay with one woman and when she delivered they called upon her and ascribed the child to whomever they decided upon, and the chosen man accepted parenthood. With the advent of the Prophet (PBUH) he forbade the wedlock of Jahiliya times and retained the type of marriage we have nowadays."

In order to obviate a genealogical confusion, a propagation of diseases, a disordered progeny and chaos in human societies, sperm and ova banks readied for fertilization by technological methods to treat infertility should only service married spouses. In addition to the foregoing ills, such banks could be a means whereby to renounce legal marriage momentarily or definitively and the constitution of a family, is a behavior that runs counter to innate human nature and to Shari'a objectives.

Such banks cannot possibly compare to blood banks. To donate blood, in the field of public health, is a human duty and befits the Islamic nature. It emanates from infinite mercy and a keen desire to save a life. They cannot also compare to the implantation of organs which is a legitimate operation that is not incompatible with Islamic objectives and human dignity. It is a necessity to save a human life or recover the functions of a basic organ.

Tunisian jurisprudence, in the era of the wise change that occurred on 25th of March, 1991, took into account the foregoing. A law in the penal code stipulates the following: "It is absolutely forbidden to remove procreation vehicles that bear hereditary characteristics from people dead or alive for purpose of implantation." This proves the legitimacy of test tubes babies whose genealogy is ascribed to their biological parents, in order to ensure a sound progeny and safeguard the ethics of society.

2. There can be no legal fertilization assisted by technology after the
separation of the spouses through divorce or widowhood. The bonds have been severed, the wife is proven not pregnant and she undergoes the legal Iddah (the period during which a widow or a divorced woman may not remarry) Fuqaha'a concurred that a genuine marriage contract is the proof of the geneology of the baby who is born within the bonds of matrimony. The Almighty sayeth: "And He is who hath created out of water man, and hath given him kindred by blood and kindred by marriage for thy Lord is All-Powerful." (Al-Furqan, 54) Kindred by blood and kindred by marriage does not exists after the separation of the spouses.

In the case of divorce, there is the Iddah prescribed for the menstruating women and for the non-menstruating. In case of pregnancy, Iddah ends at delivery.

At the death of her husband, the Iddah of the widow is the delivery of her baby if she is pregnant, and she keeps herself apart for the prescribed courses if she is not pregnant. Sheikh Taher ibn Ashur wrote in his interpretation of Tahrir and Tanzir: "Allah hath set the Iddah of widowhood at the birth of the baby to safeguard the geneology of the dead. A dead man cannot protect his geneology. Otherwise the Iddah has been set at four months and ten days."

From its perspective, Islam approves and encourages the procreation techniques assisted by technology in treating some cases of human infertility if this is done within the bonds of matrimony. It rejects the involvement of a third party as a back-up to this technique out of civility or sympathy with the barren spouses. Islam is neither spiteful nor narrow-minded, but caters for public interest, that is for mankind as a whole, such as safeguarding geneology, souls, mind, wealth and religion and giving such public interest priority over personal interest if they clash, even eliminating it totally. That is why Islam shuns adultery because of its social ills. It is for the same reason that he shuns test tube babies brought about in such chaos.

Some prominent medical men, moderate in their medical views, voiced the following viewpoint: "Biological ethics are not the sole concern of official institutions of doctors, jurists, philosophers, Fuqaha'a, sociologists, moralists, demographers and parliamentarians, it is essentially the problem of society as a whole."

Society is ever the echo of public right. In one of the paragraphs of no. 213 in the series Alam al-Ma'arefa published in Kuwait, we can read: "There is no denial that each society sets the general framework within which citizens must abide by a given behavior. If violation of
specific laws are tolerated, civilization and society will collapse, because
the basis for enlightened, fruitful and coherent co-existence is: it is
your right to live and you must also let others live."

The best conclusion as regards the background of fertilization
techniques, outside Shari'a criteria, is that the objective of Islamic
Shari'a is to cater for beneficial interest and repulse corruption, but
repulsing corruption has priority over catering for interest.

**Conclusion:**

Treatment of some cases of human infertility through in-vitro
fertilization, taking into account Shari'a criteria and medical
techniques, is a civilizational gain of benefit to mankind to-day. Islam
views it as the treatment of any other sickness or disease, as it views a
continued good marital relationship. It is part and parcel of family
planning in our Islamic ethics and societies. The Almighty sayeth: "**Has
there come on man a while of time when he was a thing unremembered?** We created man of a sperm-drop, a mingling,
trying him; and We made him hearing, seeing. Surely, We guided
him upon the way whether he be grateful or ungrateful. Surely
We have prepared for the unbelievers chains, fetters and a blaze.
Surely the pious shall drink of a cup whose mixture is camphor."  
(Al-Insan, 1-3).
Introduction:

Malaysia is a small fast developing nation situated in south East Asia with a population of just over 20 million people. Other than the 3 major ethnic groups consisting of the Malays, Chinese and Indians, there are many other smaller ethnic groups. Muslims (mainly the Malay) form about 60% of the population and thus Islam is the official religion of the country.

Infertility problems affect about 15-20% of married couples in Malaysia. The factors are varied and are attributed to both the male and the female partner. Ovulatory disorders, tubal damage, endometriosis and cervical mucus properties are the main causes of female infertility. Not much is known about male infertility in Malaysia other than the poor sperm count and reduced motility and systemic diseases like diabetes mellitus. However, more men are now becoming more amenable to investigation into their own fertility, thus accepting more responsibility for their role in and infertile situation.

The specialized Assisted Reproduction Techniques (ART) services in Malaysia for the treatment of infertility started in 1983 through the Specialist Reproductive Research Clinic of the National Population and Family Development Board (NPFDB). Subsequently, infertility clinics have been set up in private hospitals and clinics and the first pioneer In-vitro fertilization (IVF) laboratory in Malaysia was set up in 1985 at a private hospital. Malaysia is the second Asian country to establish such a laboratory after Singapore (1983).

ART Services:

To date these services of various categories have been set up in 10 centers in Malaysia:

* Private hospitals
* University hospital
* Private clinics

The problems of infertility management are still not a priority problem to the public health services of the country. Thus, to date other than the infertility management through the general gynecology
clinics, no specialized infertility services have been set up in
government hospitals. On the average, the cost for one IVF cycle is
about RM 6000 or approximately US $ 2250. It is relatively high and is
only available to the bulk of the Malaysian population until the public
sector undertakes to provide similar facilities. Although the NPFDB
initiated the services in 1983, it was not until 1986 that the IVF and
GIFT (Gamete intra-fallopian Transfer) programmes were started. The
NPFDB being a publicly funded, service-oriented agency tried to keep
the cost of its services to as low as possible. The charge for per
treatment of GIFT is only RM 2000 or US $ 800. This was in an attempt
to provide the services to more Malaysian couples who would not be
able to afford the same services to more Malaysian couples who would
not be able to afford the same services at the private centers. The first
success for the NPFDB was a set of GIFT twins in July 1988, but the
first ART baby was through the IVF program from the successful effort
of a private hospital in 1987. Currently, the success rate of the various
ART centers ranges from 15-30% depending on the set-up and the

technique used. However, the implementation of the ART programs in
Malaysia will have to conform to the local legal, ethical and religious
norms.

**Ethical and Legal Issues:**

To date there are no specific laws or regulations governing the
ART in Malaysia. Although the NPFDB and the Ministry of Health have
formulated some regulations, these have not been formally legislated.
The NPFDB published the "Malaysian Laws and Policies on Human
Reproduction" in 1989 while the Ministry of Health produced the
"Guidelines on Assisted Reproduction Techniques" in 1991. Even the
existing Human Tissues Act of 1974 provides no provision to effectively
control the handling of embryos and human tissues under the IVF
program. This Act only makes provision with respects to the use of
parts of human bodies of deceased persons for therapeutic purposes
and for purposes of medical education and research.

**The Religious Issue:**

In a Muslim country like Malaysia, the religious issue is very
important indeed. The National Fatwa Council in Malaysia has ruled in
favor of the ART. But the most important condition is that the
"biological" (natural) father of the conceptus and the husband of the
woman must be the same person, otherwise the procedure could be
considered as "zina" (adulterous). This is similar to the ruling in 1985
of the Jeddah-based Al Majma’ Al-Fiqh Al-Islami (jurisprudence
Academy). It is simple and clear a third person should never be allowed
to be involved.
The Chief Buddhist Monk in Malaysia had also given his support for the IVF program since he is of the opinion that this method had not violated the basic religious principles of Buddhism. Buddhism gives full freedom to man to make use of his intelligence for the benefit and welfare of people. When a couple is unable to have a child, due to infertility, this can be a source of mental and emotional suffering to the parties involved often giving rise to marital problems; and hence the Buddhist religion is in support of finding practical solutions to such situations. Many Chinese and Indians in Malaysia are Buddhists.

The Hindus spokesman stated that "it is immaterial where life comes from. Hinduism considers any form of life as the rebirth of a soul in another body" He preferred test-tube babies to adoption. The Hindu religion sees no apparent religious objections to any method of ART.

The Christians do not have much to object to Artificial Insemination by Husband (AIH) since both the parents are natural and biological parents. However, there is their objection to masturbation, which is regarded as a departure from the natural process. They are much against the Artificial Insemination by Donor (AID) because of the sperm of the donor is involved. This intrusion of the third person into the sanctity of marriage is vehemently opposed by the Christians (and also the Muslims). Regarding IVF, since it is "the female equivalent of AIH" the Christians do not have much objections to it too except for the masturbation part.

However, there are several ethical questions raised regarding the "many possibilities and ramifications" of IVF:
1. The moral status of the human embryo.
2. The unnaturalness of tampering with the mystery of nature.
3. The risk of IVF to the transferred embryo and surgery (laparoscopy) to the mother.
4. The allocation of health resources.
5. The social-psychological effects of the identity of the child and family.
6. The precedence IVF may set for eugenic measured.

Other Issues:
Although it is said that "a number of children have been born following a period of cryopreservation (of fertilized ova) without apparent ill effect" this procedure of ART is still not allowed in Malaysia due to the fear of ethical and legal violation. Since cryopreservation is not allowed, thus spare embryos would be disposed. Ovum donation is not permitted definitely since this is the female equivalent of AID.
In surrogate motherhood, although the wife's ovum and husband's sperms are used, there is the involvement of a third person. It raises not only ethical problems but also legal problems because of the contractual agreement with the surrogate mother. Hence, this condition is not allowed in Malaysia.

**Conclusion:**

Although there are many ethnic groups with various religious beliefs in Malaysia, the practice of Assisted Reproductive Techniques has to conform to the ruling of the National Fatwa Council since Islam is the official religion of the country. This means that as long as a third party is not involved in the procedure to help an infertile married couple to conceive, any suitable method of ART would be allowed. However, since the rules and regulations have not been formally legislated, sporadic violations and abuses of these guidelines cannot be avoided. To enable the less affluent infertile couples to benefit from the various ART, the public hospitals should undertake to set up these services too. This would require increase public health budget allocation. With the improved economic developments, Malaysia should be able to undertake this in the future.
ETHICAL AND LEGAL DILEMMAS ENCOUNTERED IN ASSISTED REPRODUCTIVE TECHNOLOGY

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Abstract:
Assisted Reproductive Technology (ART) has helped many infertile couples to overcome their debilities to conceive. However, the application of such technology has raised many dilemmas which may lead to a clash with Islamic culture, treading on Islamic Shari'a and legislation and undermining ethics of Islam. Among such dilemmas are the fates of supernumerary embryos, age limit of treated women, preimplantation genetic screening, research on gametes and supernumerary embryos and nuclear cloning.

Many of these dilemmas which give cause for concern and litigation in Islamic countries should have been resolved by carefully drafting legislation in an "Act". The Act, once called for by governments, should provide a legal framework by which the use of human gametes and embryos both for infertility treatment and for research can be regulated. Therefore, certain recommendations are proposed for the setting up of statutory body, "Islamic Committee (or Authority) on Human Embryology and Fertilization (ICHEF)", to regulate both the practice of assisted conception techniques and research using human gametes and embryos, by issuing treatment and research licenses to in vitro conception units/centers, without which it is illegal to practice. Further roles of such committee/authority are also included.

Ethical and Legal Dilemmas Encountered in ART:
The Dilemmas:

There are three aspects of the dilemmas: Social dilemma, legal dilemma, and ethical dilemma.

1. Social Dilemma:
There are aspects to the social dilemma:
* Definition is not yet fulfilled (patients may not countenance IVF and the creation of a human embryo extracorporeally at all).
* Social pressure which includes sex predilection, sense of guilt not to admit infertility, and financial burden.
* Shortages of government IVF centers.
2. Legal Dilemma:
There are many aspects of legal dilemma:
* Absence of a statutory body, in some countries, which regulate the practice of assisted conception techniques.
* In present, many lack clear guidelines to the code of practice.
* May, also, lack the power to take action to revoke licenses if conditions were not met.
* Absence of clear guidelines to the direction and limitation of research.

3. Ethical Dilemma:
There are several aspects of ethical dilemma:
* Status of couples receiving infertility treatment.
* Number of embryos to be transferred.
* Fate of supernumerary embryos.
* Cryopreservation of gametes, embryos, and tissues from reproductive organs.
* Decision to select superior embryos following preimplantation diagnosis.
* Decision to reduce one or more fetuses in case of multiple pregnancy.
* Research aspects and introduction of new techniques.
* Genetic manipulation (the replacement of defective gene which may require nuclear cloning).
* Sexual and a sexual cloning.

Recommendation No. 1:
Call to establish Committee/Authority on Human Embryology and Fertilization. The aim of which is to formulate and establish a permanent Committee or Authority, approved by government, deemed to lay down and regulate all necessary basis of work procedures and their conducts in assisted conception units/centers. There are two central goals to such establishment: first) to set certain rules and regulations to be followed by all practicing assisted conception units/centers; second) to supervise the compliance by the centers to the set rules and regulations.

1.1 Specific Objectives:
Once established the committee or authority should be able to:
* Issue treatment licenses.
* Supervise and check the daily procedures.
* Evaluate procedures and working team.
* Provision of guidelines and advises.
1.2 **Justifications:** There are several justifications for establishing such committee/Authority:
- Absence of a specialized statutory body which supervises and regulates the centers' activities.
- Absence of unified policy of applied treatment in many centers.
- Shortage of work regulations in many centers.
- Absence of clear research objectives and its limits in some centers.
- As a result, it is probable to commit a mistake during a treatment cycle.

1.3 **Responsibilities:**

The government (Ministry) should confer absolute power to the assigned body to act on its behalf to:

- Issue appropriate licenses, which include:
  - IVF treatment and cryopreservation License.
  - License to each participating member of the team.
  - Micromanipulation license.
  - Research and development license.
  - Nullify or suspend license to the center and/or to any member of the team if conditions are not met and/or rules are not followed.
  - Take disciplinary action to any offender.
  - Carry out continuous supervision to the centers.
  - Evaluate and conduct routine check to all activities of the centers.
  - Check on all log books of the center.
  - Make sure that all treated patients have been checked for all necessary tests.
  - Supervise publication, which includes release of information to the media.

1.4 **Set-up Requirements:**

Setting up the committee requires the following:

a) **Supervisory Staff:**
- Reproductive Endocrinologists
- Andrologists.
- Embryologists.

b) **Supportive Staff:**
- General Director.
- Deputy Director for administration and finance.
- Deputy directors for (clinical, scientific, and care).
- Secretaries, coordinators, and general relation officers.

c) Office Requirements:
- Various Equipped Offices.
- Data Processing Center.
- Library.

**Recommendation No. 2:**

To discuss Recommendation #1 thoroughly and come up with a unified View for establishing an Islamic committee/Authority on Human Embryology and Fertilization.

**Recommendation No. 3:**

To request the kind efforts of ISESCO to present Recommendation #2 to all Muslim governments in the hope of implementation at various IVF centers.
"O mankind, fear your Lord, Who created you of a single soul, and from it created Its mate, and from the two of them spread men and women; fear God by Whom you Demand one of another, and the wombs (that bore you); Surely God ever watches over you."

Given the seriousness of medical intervention in fertilization cases, the Syndicate of Physicians of Egypt deemed it necessary to lay down rules for the establishment of "Institutions for Assisted Fertilization" and rules as well for the choice of those who will work in such institutions.

There is also need to lay down performance rules in these centers and clear-cut legal prohibitions as regards such performance.

Rules cannot be binding without an executive body to monitor performance, ascertain its soundness and penalize those who infringe such rules. To this end, the Syndicate of Physicians has drawn up a set of regulations organizing the work of fertilization institutions and will soon call upon the concerned parties to consider these regulations before their adoption and application.

These regulations cover operational rules in the afore-mentioned fields.

I) Rules for licensing the institution involved in the Assisted Reproductive Techniques field:

1. It has to be equipped as a medical institution as set out in Law 51 of 1981.
2. It must fulfill the conditions required for licensing and must be equipped with the following:
   * A laboratory for traditional fertilization and refrigeration comprising facilities for cryo-preservation of embryos.
   * An attached operation theater provided with adequate anesthetic facilities and surgical instruments.
* A laboratory for bio-chemical analysis (to analyze sperms and hormones as well as serological analysis).
* An equipped gynecology clinic.
* An equipped andrology clinic.
* A post-operation recovery room and an intensive care unit;
* A room for the collection of sperm samples and other body fluids;
* A place where patients can stay during one day;
* Rooms for doctors, nursing and other administrative services;
* A minimum for the following equipments is required:
  a) Endoscope to monitor ovulation;
  b) Apparatus to measure the chemical components of blood, hormones, acidity and osmotic pressure;
  c) Microscope to examine semen;
  d) Dissection microscope (Polariscope);
  f) Equipment for Intracytoplasmic sperm injection (E.C.S.I);
  g) Carbon dioxide incubator to preserve sperms, ova and gametes.

II ) Licensing Rules for the Staff Members of the Institution:

Staff members in this institution must be of the highest standard in terms of technical competence and ethics.

1. Director of the Institution :
   Scientifically
   He must at least be a consultant in one of the fertilization branches:
   * Gynecology  * Endrology  * Andrology
   Practically
   He must have at least five years experience in Assisted Reproductive Techniques.

2. Technical Staff:
   The following categories must be employed at the center:
   * A specialist in gynecology.
   * A specialist in andrology.
   * A specialist in medical analysis.
   * A specialist in embryology. He must hold a higher university degree in the field, or a B.Sc. with at least one year experience in fertilization practice.
3. Paramedical Staff:
* A sufficient number of staff members with experience in the various laboratories.
* An adequate nursing staff.

III ) Rules and Conditions of Work:
1. Assisted conception devices are not to be provided to the following categories:
   * Separated couple
   * An unmarried couple
2. It is not allowed to involve a third party, either seller or donor of embryo, cells, male sperm or male or female gametes;
3. Surrogacy is not allowed whether on rental or lending basis;
4. Fertilization treatment should not be applied before two years of marriage, except in special cases approved by the monitoring body (proposed).
5. Fertilization treatment should be applied before precise diagnosis of the case;
6. Before starting treatment, a report must be written on the case, indicating the steps to be followed.
7. These steps should, as far as possible, abide by the following sequence:
   a) Medical treatment.
   b) Surgical treatment.
   c) Traditional fertilization treatment within the uterus.
   d) Traditional fertilization treatment outside the uterus.
   e) Intracytoplasmic Sperm injection (ICSI) Unless the report prescribes and is approved by the monitoring body (proposed).
8. No change should be made on the prescribed steps of treatment unless approved by the patient and the monitoring body.
9. It is not allowed to dispose of spare embryos, sperms or ova, either by conservation or disposal without the prior consent of both spouses.
10. Scientific experiments should not be conducted on live embryos whether in-vitro or in-vivo.
11. To ensure proper treatment, the monitoring body should approve the relevant plan or any changes thereon.

IV) Monitoring Body:
There must be a monitoring body, similar to the Monitoring Council for Psychological Diseases, to be established by virtue of a decree from the Minister of Health, and attached to the Curative Medicine Directorate. It shall be called the "Monitoring Body over
Fertilization Centers." The proposed body shall be composed as follows:

A. Technical Council:
   * Under-secretary of the Ministry of Health - Chairman
   * A representative of the Syndicate of Physicians
   * A representative of Al-Azhar Al-Sharif
   * A representative of the Ministry of Justice
   * A representative of the Egyptian Medical Association
   * Two university professors specialized in the field
   * The Secretary of the Council

B. Secretariat of the Council:
   It is the administrative organ of the monitoring body.

Mandate of the Monitoring Body:
1. Grant and withdraw licenses to the concerned organs, if required;
2. Approve expertise and licenses of staff members;
3. Examine technical reports submitted by each center, follow-up treatment plans and rectify these whenever the need arises;
4. Inspect the premises of the centers and act as judiciary police to ensure the sound functioning of the centers;
5. Arbitrate in conflicts between centers and individuals or among the centers;
6. Lay down the ethical and legal criteria governing the technical work and scientific research;
7. Authorize the use of new methods prior to their application by the centers;
8. Summon staff members who contravene the rules before disciplinary authorities, such as the professional Ethics Committee or other relevant disciplinary authorities.

In terms of recommendations, I propose the following:
1. To issue the proposed above rules in the form of by-law after its consideration by a seminar of specialists.
2. To request the Minister of Health to issue a by-law on the monitoring body.
3. To promulgate a law penalizing the staff members of such centers if they contravene the rules.
SOCIAL ASPECT OF ASSISTED REPRODUCTIVE TECHNIQUES (ART)

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Developed rapidly over the last twenty years. Assisted Reproductive Techniques (ART) are now widely available all over the world. Indeed they have transformed the lives of millions of people.

A.R.T. however are unique in that apart from their medical aspect, there are several other aspects affecting or influencing A.R.T.

The various aspects to consider are:- - Religion. - State, Cultural, Social, Ethical, Financial and Economic Media.

Since I come from Pakistan, I would like to apprise you of the situation there. A country of population well above 130 million, and an annual growth rate of 3%, it is projected to become the third most populous country of the world by year 2010. However, the literacy rate has been static over last several years at 20% for females and 40% for males. These figures have far-reaching consequences for the entire lifestyle of Pakistanis.

Religion:
In the Muslim World, religion has a strong influence on beliefs. However, concepts vary due to differences in interpretation. The population is compounded by the influence of elergy and paucity of Muslim Scholars. Issues like adoption services and surrogacy are taboo, while even A.R.T. is poorly understood.

State:
The resources of state are limited. Health budgets are low. Low qualified quacks or even some General Practitioners offer haphazard management and work-up in Pakistan, 60% of population is in rural areas which creates logistic problems for access to primary health care facilities.

Cultural:
Because of close family ties and joint family system, the conventional expectations from any couple is birth in the first year. In rural areas, some marriages occur in early teens, compounding the problem.
Social:
Ever since getting married couples are on the defensive regarding childbearing. Wife is blamed for infertility and second wife is chosen quickly. Men conveniently refuse semen analysis. A.R.T. is often misunderstood as only donation of sperms’ or eggs.

Ethical:
The ethical aspects evolve according to current concepts or lifestyle. Even now with all the information explosion, there are serious reservations among couples while the wives are subjected to jeers. Unemployment and illiteracy predispose to poverty and sickness, exacerbating the ethical issues.

Financial and Economic:
Most of A.R.T. programmes, depend on self-funding, limiting its access to few lucky couples. Donations and charity are hard to come by. Insurance cover is not usually available for A.R.T. and government support is lacking.

Media:
The role of the media tends to be more of tabloid sensationalism, rather than reporting of facts. Authenticity of information is often not checked. Most people highlight condemnation of A.R.T. rather than educate people about A.R.T. These problems are several fold in countries with solitary or few A.R.T. Centers, as in Pakistan.

Why Do A.R.T. ?
It remains a most rewarding and satisfying experience to help bring a miracle into someone’s life. It is still worth it. However, the difficulties of A.R.T are numerous. There are few centers in Islamic countries. Without proper referral system and financial support, low success rate, lot of motivation is required on part of A.R.T. Team.

Prospects in Muslim World:
Increase in population means increased demand for more Centers, both in private and government set-up. Creating awareness may result in better referral system and improvement in literacy rate, will be useful.

Recommendations:
- Consensus of religious schools of thought.
- State-national programmes should incorporate A.R.T. as part of Reproductive Health.
- Cultural and social revolution is dependent upon changes in other aspects of A.R.T.
- Ethical Committees comprising religious scholars, politicians, scientists, social workers and clinicians at National level. Scientific research committees for clinical-side and monitoring committees for implementation of ethical guidelines.

- Economic and financial aspects- awareness of procuring financial support from Governments charities, insurance etc. needs to be explored.

- Exchange of information and technology, data and personnel within Islamic World at various levels.

SOCIAL ACCEPTABILITY OF ALTERNATIVE TECHNIQUES FOR REPRODUCTION
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In the Name of Allah , Most Merciful, Most Compassionate

Introduction:
Allah has created mankind as best of creation. He has declared in the Holy Qur'an: "We have honoured the sons of Adam" (Al Esra'a, 70).

So, mankind is blessed with better knowledge, intelligence and consciousness than other creatures of the universe. As a result human being follows certain values, norms and ideals in its personal and social life. The system of marriage and family is the product of such civilized human behaviour. The natural and socially acceptable method of reproduction is the sexual interaction between a man and woman bound by the sacred bondages of marriage. But in recent days a research is going on to have alternative method of reproduction outside the preview of marriage. Muslim scholars are also pondering how to react to this in the light of the teachings of the Holy Quran and Sunnah.

The question of adopting alternative method of reproduction in general and in the case of an infertile sterile woman in particular, is discussed below.

This method is now known as ART Assisted Reproduction Technology.

Islamic Sharia:
Allah has created mankind with a superior structure and adourned him with sexual ability and urge for the purpose of reproduction and thus maintaining the process of generation. Allah has also fixed some procedures to be followed. As for mankind in this respect to protect his dignity and honour even in this type of purely physical and material action which other animals do in the crude and unplanned way. The principal item of these procedure is to enter into marital relation for the purpose of meeting sexual urge and giving birth to children. To have this goal attained without marriage is a serious crime and punishable by death.
Almighty Allah said in this regard:

"Except with those joined to them in the marriage bond, or (the captives) whom their right hands possess, for (in their case) they are free from blame. But those whose desires exceed those limits are transgressors" (Al-Mu'minun, 6-7)

Islam has forbidden adoption of any method outside the institution of marriage to produce children as it prohibits any method other than marriage for fulfilling sexual desire. Almighty Allah has fixed the natural course of marriage, as the only means to produce children. He declared:

"O' mankind Fear your Guardian Lord, who created you from a single Person, created, out of it, His mate and from them twain scattered (like seeds) countless men and women." (An'Nisa' 1).

Almighty also said:

"...... so now associate with them and seek what Allah had ordained for you......" (Al-Baqarah, 187)

Almighty Allah said:

"Your wives are as a tith unto you ......" (Al-Baqarah, 223)

It is clearly proved from these verses that:

A) Adoption of unnatural and illegal means for meeting sexual urge is a punishable crime in Islam.

B) One must be confined within the limits of marriage for producing children. It means he cannot adopt any other means and cannot accept sperm of other person for this purpose. This kind of act will be considered as adultery. Though 'Hudud' will not be applied to such cases due to absence of the form of adultery.

It may be mentioned here that the system of reproduction is a part of natural secrecy. So, it is better not to try to break this secrecy by indulging, into any kind of artificial means. He said in this regard...
"To Allah belongs the dominion of the Heavens and the earth. He creates what He wills. He bestows (children) male or female according to His will, Or We bestows both males and females, and He leaves barren whom He wills. For He is full of Knowledge and Power." (Ash Shura, 49 & 50).

According to Islamic Laws, children are heirs to their parents and get ownership of their properties. If any woman accepts sperm of a man other than her husband and gives birth to a baby then who will be the father of that baby? Whom he will get inheritance from? This will surely create serious complication in the ownership of properties left by the husband of that woman. Islam does not permit such things which create social chaos and disorder. This also falls under this category, and so, it cannot be supported by Islam.

There was no such alternative method adopted by the early Islamic scholars and there was no research among them on this issue.

Among the reasons for which adultery is prohibited in Islam is the chance of distorting genetic discipline. Adopting, any, means outside the system of marriage for reproduction also comes under this formula. Putting, sperm of man other than husband in the womb or test tube or any other such methods all are equally unacceptable in Islamic jurisprudence. Because it will lead to destroy the genetic discipline. Holy Sunnah warned clearly against distorting genetic discipline.

Allah has prohibited putting sperm of a man in the womb of a woman other than wife. Waiting for three 'Iddat' after the divorce is also introduced to maintain purity of family blood. It is essential for the social and family peace and harmony.

So, all kinds of actions and technology, adopted to produce children outside the perview of marriage is totally prohibited in Islam. It is a kind of adultery, though its form is absent.
Bangladesh Perspective:

a) Bangladesh has a total population of about 130 million of which about 90% are Muslims. Their life and activities are mostly guided by Islamic values and faith. In this context, it will be totally unacceptable to them to have children outside the institution of family and marriage.

b) Acceptance of sperm of other man in a woman may create some weakness in the mind of that woman towards that man which may create conjugal dispute and permanent unhappiness among them.

Every society has its own values and tradition. It is the product of its own cultural and life pattern. Cultural and civilization cannot be exported. It always remains attached with the soil. The idea of alternative method for children bearing is the product of an alien culture and value. It cannot suit our culture and value. If such an idea, is accepted in our society, it will shake the value system of our society and gradually will lead to the permissiveness in the society.

A child born out of this illegal and artificial means may not get as much affection and support as normal children. So, it may cause mental agony and ultimate mental disorder creating problem for the family and society.

Usually family relations are established in the light of marriage relations. In case of any alternative method, marriage and family relations will be disturbed. Thus affecting the future family relations in the society.

May Allah guide us on the right path. The path of those upon whom Thou have Bestowed favours. Ameen
Gestational surrogacy in which a commissioning couple's ovum and spermatozoa are united in vitro and the resulting embryo is implanted in a woman's uterus is, of all the new methods for overcoming infertility, the most appealing genetically. This is because the genes are perceived as determining all aspects of human health, disease and even behaviors of true parents. Having a child with the genes of both parents has become far more attractive to most infertile couples than having one who is only genetically related to the father. However, gestational surrogacy, has created a situation where one child has two mothers, each one might claim to be the "true" mother having exclusive parental rights. Surrogacy arrangements also raise the question of the meaning of motherhood.

It is claimed that surrogate arrangement may be the answer for certain women who are unable to conceive children naturally.

Typically a surrogate mother is used by a couple who is unable to have children because of the wife's infertility or inability to sustain a pregnancy.

Many surrogate mothers are close friends or relatives of the childless couple. However, commercial surrogacy has increased greatly in the last 10 years. Many major cities have surrogate agencies that maintain lists of potential surrogate mothers and help match these with couples waiting to have a baby.

Surrogate agencies are often run by doctors or lawyers and may be found in metropolitan telephone books and lately in Internet. These commercial surrogate agencies charge a fee of $ 10,000 or more to make the arrangements in addition to the surrogate mother's expenses and fees. These surrogate arrangements are not legal in many countries and U.S.A. states.

Surrogate mother's fees vary between $ 10,000 and $ 100,000 per pregnancy. The surrogate mother agrees in the contract to be impregnated with couples fertilized ovum, carry the baby to term and give birth to the infant. She also agrees to terminate her parental rights to the infant and turn it over to the contracting couple after birth.
Two types of this arrangement:

I. Commercial Surrogacy:
Uterus is hired to bear and give birth to an infant through a contractual agreement and to give that baby to the genetic couple i.e. paid for this act.

II. Non-commercial Surrogacy:
"Voluntary surrogacy" usually a relative, mother, sister or second wife.

Both these two types of surrogacy have raise numerous ethical, legal and religions concerns causing many legislative bodies to consider possible statues to regulate or prohibit it. The competing interests among and between individuals involved in surrogacy (i.e. the surrogate mother, the couple, the baby and society) suggest various ethical issues related to benefits, risks and autonomy.

Society and Surrogacy:
Women activists are highly critical about the issue of surrogacy. They call surrogates "breeders" i.e. women whose bodies are used by men. Lawyers and ethicists debate whether surrogacy is baby selling or not.

Religious fundamentalists have condemned any form of procreation outside the "Normal" form of sexual relations within a marriage, Surrogacy and its Various Implications:

I. Family:

"And among His marvels is that by a special creation did he evolve from yourselves and of your kind mates to form the complement to you as your counterparts in whom you seek consolation and find comfort and between you both implanted the affection and mercy" (Al Rum, 21).

"your wives are your tilth where in you cultivate your crops of posterity" (Al-Baqurah, 223)

In the context of the family. Islam laid emphasis on the woman and her prime role as a mother and addressed itself to her well-being, her procreation, so that she may always assume her duties towards her family.

The role of the family in Islam is fully respected.
The family is the unit of humanity as Allah decreed; the family institution should be a stable structure. It has to be documented and protected by what in Islam law is called "TIE OF MARRIAGE" or "MARRIAGE CONTRACT".

Legal & Moral Attitudes of Partners in the Process of Surrogacy:

I. The Surrogate Mother:
Concerning the attitude of the surrogate mother and its moral attitude during pregnancy and after labor she may develop a deep natural attachment to the baby she carries in her womb and even more after delivery. An important issue brought into public awareness is by BABY M, case in U.S.A. where the surrogate mother refused to give the baby to the biologic father inspite of the presence of a clear contract between them.

II. The Biologic Parents:
Again moral and legal difficulties may arise between them and the surrogate mother. Competing interests between both partners will raise concerns.

III. The Child:
May recognize the facts later having 2 mothers.

RELIGIOUS IMPLICATIONS

I. CHRISTIANITY:
Previously the Christian religion allowed Surrogacy provided that Surrogate mothers should be from relatives and or friends. Later on surrogacy was completely forbidden by the Church of Alexandria.

Islam & Surrogate Motherhood:
Islam recognizes, respects and protects human life in all its phases.

The two goals of preserving self and honour combine in the Islamic Mandation that lawful marriage is the only legitimate venue for the sexual and procreative function which should protect the community. Since marriage is a contract between two persons (husband and wife) no third party can intrude into the marital functions of sex and procreation. A third party is not acceptable be it a sperm, ovum, embryo or uterus.
Surrogacy is unacceptable in Islam. Surrogacy if undertaken in other non-Islamic communities was found to pose tremendous social, ethical and legal problems.

Since many surrogate mothers do it for money, the prospect of reducing motherhood with its divine value to a price is catastrophic.

It would be necessary to note here that the Islamic Council of FEKH in its 7th meeting held in Mecca had issued a FATWA published in March 1984, allowed transfer of the fertilized ovum of a particular couple to the uterus of the second wife of the same husband. However, the Islamic FEKH Council later on withdrew this part of FATWA. So it is agreed now that surrogacy by all its forms is not allowed and prohibited in Islam.

Summary & Conclusions:

Surrogate motherhood was found to pose many ethical social, legal problems. It reduces the respected divine value of motherhood to a price.

It allows a third party to be introduced into the marital functions, which is not acceptable in Islam.

So surrogate motherhood in all its forms is prohibited in Islam.
SURROGATE MOTHERS AS A SOLUTION TO THE INFERTILITY OF SPOUSES UNABLE TO PROCREATE

Is the concept of surrogate motherhood incompatible with Islamic ethics?

Can the second wife of a Muslim man be a surrogate mother in the interest of the first wife of the same man?

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In the Name of Allah, Most Merciful, Most Compassionate

The Almighty sayeth: "This we have appointed you an even-handed nation, that we may be witnesses against mankind and that the messenger may be witness against you." (The Cow, 134)

The criteria of this Ummah and its balance in life rest on this inalienable truth, in its origin and overall content, in its performance, bounty and relationships in all areas of our Islamic life and Muslim society; likewise in the relationship of this Ummah with other peoples and countries, with whatever is new in our life, with the responsibility that behooves it, being entrusted with the message of Allah and the caliphate in the universe, since the final revelation (the Holy Quran) was bestowed on the Seal of the prophets and messengers (peace be upon him, his companions and believers). This Ummah was entrusted with the duty to convey the message, protect itself and mankind as well, in the context of the one truth so that man and jinn remain within the realm of sincere worship as the Almighty willed them: "I created the jinn and mankind only that they might worship Me." (Al-Zariyat, 56)

Islam urges believers to safeguard lineage and to beware the forbidden in the context of the Muslim society, as regards legal and social relationships, marital relations, legal marriage, without never contravening the divine prescription and the rules of His Shari'a.

We therefore state that surrogate motherhood, in its absolute sense, that is to use a womb other than that of the woman whose ovum was fertilized by the sperm of a man who was not her husband is unlawful, it is adultery or well-night adultery.

At previous conferences and seminars on several aspects of real and legal motherhood, in particular the seminar held in Kuwait on 24 May 1984, on procreation in the light of Islam, scholars disagreed.
Dr. Hassan Hathut said: "As doctors, we have to prove that the real mother is the one who provided the seed, the ovum and the legal mother is the one who bore the child and brought him onto the world."

Sheikh Badr al-Metwalli Abdel Basset said: "God Almighty sayeth: 'Mothers shall suckle their children for two whole years.' He did not say 'the incubator'. The mother is the one who delivers and sustains the life of the embryo for month after month, this is the real mother. The woman who provided the ovum is totally dissociated from the whole process and, under no circumstances, can the child be ascribed to her.

Dr. A. D. Shawki said: "Motherhood is the shaping of the embryo in the womb of the woman who sustains his life from her blood and then delivers him. Motherhood is not solely hereditary factors, although most important for the child's characteristics. However, motherhood has a wider scope scientifically and in terms of Shari'a."

Dr. Zakariah al-Herry said: "The child belongs to the woman who gives him birth; she is his mother."

Dr. Abdel Hafez Helmy said: "If we ascribe the child to the surrogate mother, we rule in favor of an adulteress or a seeming adulteress, and set aside the woman from whom came the ovum."

"In the spirit of Shari'a, as regards surrogate motherhood, the real mother is the one who provides the ovum and this is a scientific fact. The transferred ovum bears all the hereditary characteristics. The surrogate mother is an incubator and should be treated as a wet nurse and not a real mother."

Dr. Mohamad Naim Yassin said: "Ascribing the child to his biological father and to the mother who provided the ovum conforms more to Shari'a than ascribing him to the woman who gave him birth. There is a great difference between such process and adultery, in terms of confusing lineage, because the role of the surrogate mother is limited. She only feeds him and does not bequeath him any hereditary characteristics. There is a great difference between adultery and this process... the child does not belong to the scientifically proven father and mother. The penalty for this process is Ta'azir and not the penalty for adultery."

Professor Mohamad Al-Askar, answering the query as to whether surrogate motherhood was permissible, said: "It is not permissible from
the viewpoint of Shari’a. Test tube babies must be fathered by the two spouses. If this is not the case, who is the father? Is he the husband or the man who provided the sperm? And, who is the mother? Is she the woman who provided the ovum or the surrogate mother? In principle, the father of the test tube baby is the husband, if there is one; as for the mother, it is not very clear to me, she is probably the provider of the ovum.”

Sheikh Mahmud Al-Makawi said: "Surrogate motherhood is indubitably adultery, and it cannot be condoned."

After this brief expose, I wish to conclude as follows:
1. The Holy Quran addressed the innate natural marital relationship and does not refer to any changes brought about to the nature of the divine sequence, in terms of third parties and relationships, that contradict and differ from what God ordained. There is no Quranic verse that reflects on any new sequence different from the original pattern or changing it.

2. A Hadith of the Prophet (PBUH) says: "Keep away from him Sawda." We have here an ethical dimension and not as some may think, in the issue of the real or legal father and that the provider of the seed does not matter.

Did you forfeit that the wise Shari’a deprives the foolish man of the right to dispose of his own wealth? The Hadith establishes an ethical dimension in stands and relationships and is not meant to deny facts.

Referring to the Quranic verses on mothers and the hadith: "You are created in the womb of your mother." Dr. Ahmad Shawki explained that neither the verses not the hadith related to surrogate motherhood. It was most judicious of him. However, he was not so fortunate when he revised the verses on the womb of mothers, adding that motherhood does not only rely on inherited factors.

As a whole, his meaning is correct. However, had the doctor applied the same analogy to his analysis of the verses on mothers, the conclusions of his analysis would have been more precise.

Whatever the case may be, the verses on motherhood refer to an innate situation and not to a transfer from the mother’s womb to a loaned womb. The verses do not also refer to motherhood as an ovum, a pregnancy and delivery. The Quranic verses cover all relevant aspects.
Finally, and God knows best,

The woman to whom the ovum belongs is the real and legal mother. The woman who provides the womb and not the ovum is a wet nurse, according to Shari'a. She will be recompensed by Allah for pregnancy and delivery.

Surrogate motherhood is not permissible unless the sperm of the husband has fertilized the ovum of another wife of him. The surrogate mother is viewed as a wet nurse. The other wife who has provided the ovum is the real and legal mother. God knows best, He succors and bestows success.
ETHICAL FUNDAMENTALS OF THE CONCEPT OF SURROGATE MOTHERS

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One of the primary objectives of Islam is to elevate man to a position worthy of him, not to unleash his instincts and degrade himself to the level of animals.

Islam surrounds the human being, whether male or female, with protective measures that start with the Islamic faith and end with ethical conduct without overlooking the fact that he is a human being who is motivated by sentiments and instincts that need to be satisfied.

There are two aspects that manifest the essence of Islamic legislation:

The First Aspect deals with the social framework. Islam depends on comprehensive legislation that should be applied to or accepted by society in its totality, without any subdivisions, in order to realize public justice in all aspects of life.

The Second Aspect deals with direct, frank and strict confrontation that aims at safeguarding the family as an entity in society. Islam has provided a decent life to the married couple, legitimate relations within the framework of legal and moral rules that would protect them against the evils of deprivation and provide them with unforbidden options.

Sharia, being keen to preserve the dignity of man and considering him God's heir on earth, prohibited any relation between man and woman except the legitimate marriage with the intention of forming a family, building a sound community and safeguarding the fruit of this marriage, i.e. the offspring. Hence, Sharia decreed rights, obligations, responsibilities and commitments to protect human life, and preserve its dignity to enable the human beings to carry out their mission on earth as per the words of the Almighty: “I have only created Jinns and men, that they may Worship Me. No sustenance do I require of them, nor do I required that they should feed Me.” (Az-Zariyat : 56 -5v).

Hence, I believe we have to call for setting legal regulations and observing ethical bases when tackling problems related to scientific experiments and technologies. Besides applying Islamic Sharia as it
used to be applied during the prosperous ages of Islamic civilization since it is the safety net against manipulation of mankind to which the Islamic Umma and all Islamic communities have been subjected particularly the religious, intellectual, and moral aspects.

I meant to tackle the problem of using surrogate mothers as a solution to the problem of infertility of married couples who cannot beget children, the extent of its agreement or disagreement to the morals that emphasize the importance of the family in building the community, and the position of the mother in safeguarding its youngsters who are the real wealth of the Islamic Umma.

The methodology of this study includes after this introduction a preface and three research papers:

The First Study: Procreation between Legal Objectives and laboratory Experiments.
The Second Study: The Concept of True Motherhood from a Legal Angle.
The Third Study: Ethical Basis in Safeguarding Family Ties and Human Interests.

The Conclusion contains the most important results and recommendations and finally a list of references and documents.

Preface:
General Rules set by Islam for Honouring Man:

God the Almighty has privileged man over all other living creatures by giving him with the power of thinking, knowledge and moral values. He has given him unlimited capabilities in the field of innovation, creativity and imagination. He has given him the power to acquire, control and harness experience to realize technological and cultural development. ¹

Since Islam is a universal, eternal and exhaustive religion, there is no doubt that it was revealed to serve the interest of man in all ages and times. Hence, its general precepts revolve around the interest of man who is the base and core of society. Thus Islamic jurists "fuqaha" are able to find appropriate solutions in conformity to the precepts of our true religion and realistic rules² of Islamic Sharia which acknowledges the weakness of man. Hence, it did not leave any door

¹ ) " Genetic Engineering and Morals", Nahda Al-Baqsami, p. 7.
² ) "Faith and Life", Dr. Youssef Al-Qardawy, p. 161 onwards.
ajar but assessed all the exigencies to which he may be exposed. Accordingly, the basic rule is that matters are allowed in principle. This provides us with the chance of legitimate benefit from all new developments that may be useful to mankind whether individually or collectively, since they are controlled by legitimate rules and guided by religious precepts, unless there is a legitimate categorical ruling to the contrary, as emphasized by Islamic fuqaha' and scholars.

Regarding the rule of preponderance of public interest over private interest, comparison should be made between advantages and disadvantages. In case of conflict, however, preference should be given to public interest to protect the society and safeguard its interests.

This rule leads to another which gives preference to warding off evil over reaping benefits, even if these are realized through justified means. This is an important principle that protects society against grave hazards. The Islamic society does not approve any evil act regardless of any potential benefit it may produce in spite of the principle stating that in case of necessity forbidden acts may be allowed. Such a necessity is assessed on its own merits and its relevance to public interest.

The Muslim community has its own distinctive character which it respects in dealing with other communities in different parts of the world.

This distinctive character is determined by the Islamic creed, Sharia which declares illicit certain acts defined by religion to safeguard faith and morals, body and soul. These basic principles shape the Islamic character without which it cannot realize its specific entity. This framework is solely governed by the provisions of the Holy Quran, the tradition of the prophet which stands as public legislation. Man is not allowed to introduce any amendments, additions or deletions thereon. This is the religion God has completed to his subjects when he said: "This day have I perfected your religion for you, completed my favour upon you, and have chosen for you Islam as your religion." (Al-Maida, 4) It is the only path for safeguarding the Islamic Umma and distinguish its population. 1

The modern innovations that exist in other communities call for giving man absolute freedom in all domains and liberating him from any religious or moral restrictions. These communities may have their justifications for adopting these ideas which are not restricted to them

but have reached us with other scientific accomplishments and technologies. Hence, we cannot isolate our societies from the whole world nor prevent these innovations from reaching us. Hence, unless we take measures to protect our children from this approaching scientific evil by giving them the right religious and moral inoculation, we will lose our children for good. In this context one should mention that audio-visual means of communication, as well as the written media spit out their venom on us through the satellites that seek to obliterate what is left of our identity, authenticity and morality.

Therefore, we have to shoulder our responsibility by raising the scientific awareness of our communities in this domain, particularly since the Almighty God has ordained us to pause and ponder life, the universe and His creation as per His words: "Soon will We show them Our signs in the (furthest) regions (of the earth), and in their own souls, until it becomes manifest to them that this is the truth. Is it not enough that thy Lord doth witness all things? (Fussilat, 53).

The First Sub-chapter
Progeny Between Legal Objectives and Scientific Experiments:

Islam has given progeny particular attention over all other revealed religions as well as positive law. It granted the child several rights including the right to life, genealogy, breast-feeding, custody, allowance and guardianship, inter alia to help him become a good element in his own community. Preservation of genealogy is one of the five objectives of Sharia that should never be violated. 1

Hence, Sharia has drawn up a set of legitimate rules to distinguish this form of marriage which is referred to in the Quran as the "solemn engagement" in forming a family to distinguish it from other contracts and documents. Hence, it nullified all forms of marriage prevalent during the pre-Islamic period including customary practices. There are several relevant traditions of the Prophet (PBUH) of which we cite: "Any woman who begets her community a child who is alien to it, would have transgressed the path of Allah. Similarly, any man who refuses to acknowledge his child in spite of his certainty will be separated from God on the Day of Judgement and his crime will be disclosed to the witnesses." 2

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2) Ibid
Sharia has urged parents to set a good example for their children by following the tradition of the Prophet (PBUH).

Moreover, Islamic Sharia emphasized the right of the child to life and prohibited abortion which is tantamount to killing him.

Abortion is scientifically defined as the evacuation of the fetus from the uterus with the intention of getting rid of the fetus.

Abortion is divided into three types as follows:
1. Unintentional abortion, which is not deliberate nor pre-meditated on the part of the woman.
2. Social abortion, which is deliberate and pre-meditated and motivated by no desire for procreation.
3. Therapeutic abortion, which is executed under medical supervision to safeguard the life of the mother. This also includes types of abortion in which both mother and fetus are victims.

Islamic jurists expressed conflicting views regarding legitimacy of abortion depending on the time when it takes place. The preponderant view states that interruption of pregnancy is forbidden at any phase of conception starting from the attachment of the sperm to the endometrium till the last moments of its growth in the mother's womb.

**Progeny and Sterility:**

Progeny is one of the blessings of God. Therefore, children should be protected and given all facilities to enjoy a happy life. However, several families wish to have children of their own but are deprived due to the infertility of one or both spouses. What is the solution in such a case? Should they resort to artificial insemination? Is this method in conformity with the provisions of the Sharia? Should they give in to God's will and accept their destiny or should they seek medical treatment? Treatment is undoubtedly sought and required. However, there must be complete conviction that not all desires are fulfilled. Not all aspirations of man are fully realized. Emphasis should be put on faith in God and acceptance of one's destiny. Otherwise, patience and forbearance would be meaningless. This distinguishes Islamic communities from other communities that suffer from despair and oppose the will of God and lose sight of His guidance.

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1) Refer to Document: Conference on Population and Development, Dr. Al-Husseini Soliman Gad, p. 104 onwards, No. 53 of Kitab Al-Umma, 1417 H.
3) Refer to "Qadaya Al-Mar’a fil Houdoud wal Ginayat (Problems of Women : Houdoud and Genayat), Dr. Amina Al-Gaber.
Second Sub-chapter
The Concept of Real Motherhood from the Legal Aspect:

Motherhood is a great honour. It is like an award conferred to women in life. It is equally a school where people learn the meaning of sacrifice, generosity and altruism.  

Western life has neglected the real meaning of motherhood when it stripped it of its reality, destroyed the family as an entity by severing the close ties between mother and child and exploiting the most private possessions of women and offering it for sale, rent or donation. Does any woman have the right to dispose of something that she nor her husband own? They both belong to God. The relationship between mother and child is not limited to the oocyte but goes beyond that till the child grows up and becomes independent. It is spontaneous, instinctive and eternal. This fact explains why the Quran recommends kind treatment of parents in many verses and places their affection and devotion right next to His unity.

However, when using a substitute or surrogate mother will the real meaning of motherhood and the close and strong links be realized? To whom will the child belong: to the egg donor or to the mother who carried him and suffered till she gave birth to him as per the words of God: "In pain did his mother bear him and in pain did she give him birth." (Al-Ahqaf:15) Who will be the father? Will it be the sperm donor or will it be the one on whose bed the child was born? Who will bear the responsibility of bringing up the child till he becomes an adult male or female?

Artificial Insemination:

This is a revolution that contradicts many deeply-rooted customs in Islamic societies that are governed by the precepts of religion and ethics. Its danger lies in the fact that it is continuously evolving as a result of new medical and scientific discoveries. It is not restricted to treatment but responds to human desire, but human desire is not limited to necessities.

Not all that is scientifically or medically possible may be legal, ethical or according to Sharia because medical feasibility is one thing and legal or legitimate feasibility is yet another. We should never believe that science, through its means and potentialities, will change

the essence of human life, which God has based on suffering. \(^1\) "We have created man into toil and struggle." (Al-Balad:3)

Undoubtedly, in vitro fertilization is a blessing and an astounding scientific progress. Besides, it provides the solution for parents who are deprived of having children. However, from the practical point of view, it opens the door for medically assisted technologies namely: \(^2\)

1. Using a surrogate mother to go through the process of pregnancy instead of the real mother.
2. In vitro fertilization.
3. Controlling hereditary factors in embryos and controlling their sex according to the wish of the parents.
4. Producing children with extraordinary faculties
5. Cloning of genetically desirable human beings
6. Producing a new hybrid generation resulting from cross breeding of human beings and animals (God forbids).

We will limit our discussion to the first scientific experiment, namely:

**Surrogate Mothers:**

This means leasing a uterus from a woman other than the wife who accepts to carry the fertilized egg. This means adding nine months of gestation to the traditional task of a wet nurse. \(^3\)

This raises the following question: Is there a woman who accepts to play the role of a human incubator for the sake of another? Will the other woman experience the feelings of real motherhood? These feelings that emanate from bearing the pain of pregnancy and delivery with love, sacrifice and patience.

If leasing the uterus is an accepted procedure in some societies that do not give much weight to religious, ethical and even family considerations? Will they be accepted in Muslim societies?

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\(^1\) Seminar on “Ethical Implications ;, 13 – 15 Feb, Doha, Qatar, Study by Sheikh Youssef Al-Qardawy, "Diagnosis Prior to Delivery and Abortion", p. 90.


\(^3\) Ibid
**What is meant by Surrogate Mother?**

This means the woman who accepted to carry a fertilized egg for the benefit of another. Hence, at birth the newborn will carry the name of the egg donor and not the name of the woman who carried him in her womb and gave birth to him. The rule of the surrogate mother is limited to carrying the fertilized egg till birth. The newborn is then returned to the egg donor; hence, the name surrogate mother or leased uterus...etc. There are different forms of surrogate mothers.¹

1. The fertilized egg may belong to the married couple who will have the newborn after birth. The zygote is implanted in the uterus of the surrogate mother who bears the responsibility of carrying the embryo till he is born then it will be returned to the egg donor.

2. The oocyte may belong to the surrogate mother who volunteered to carry the embryo. It is then fertilized in vitro by the sperm of a man who is not her husband, then re-implanted in her uterus. After delivery the infant carries the name of the sperm donor and his wife.

3. The oocyte may belong to the surrogate mother and is fertilized in vitro by the sperm of her husband. The zygote is then re-implanted in her uterus for the benefit of another couple.

4. The zygote may belong to a married couple, then planted in the uterus of a woman other than the egg donor for the benefit of another couple. In this case the infant is the son of a married couple but was carried during gestation by a woman other than his mother, and finally carries the name of a different married couple who are not related to him either biologically or otherwise.

**In the afore-mentioned cases who could be called the surrogate mother?**

Apparently, the first case could qualify because the intervention of a third party is unacceptable in Islam according to the provisions of the Sharia, customs, ethical and legal considerations. This has been the consensus of fiqh academies and Muslim jurists, not to mention other forms that are classified as illicit and not in conformity with the law like adultery, offering children for sale...and other matters that violate the dignity of man and debase him to the level of animals.

If the aim of artificial insemination is to treat infertility and to contribute to the happiness of families, it should be carried out

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between the married couple, even if conception occurs without direct contact between them out of necessity. Such necessity is assessed on its own merits. However, the intervention of a third party, whether a donor or lender, whether paid or unpaid, is legally and traditionally unacceptable by all Muslims. This is due to its harmful effects on the human being, his values and legitimate aspects of life as a whole.

There are three points of warning in this respect:
1. Regarding motherhood: Such a practice contradicts the concept and sanctity of motherhood. It even contradicts the vital role played by the family, which provides protection and care to the child. Hence, the spontaneous relationship between mother and child is reduced to that of a hatchery.

2. Regarding the woman: The woman who follows a course against a woman’s dignity and her ideal role in life besides her basic responsibility which is characterized by sacrifice, altruism, affection, compassion and tenderness.

3. Regarding the newborn: The future of the newborn is threatened socially as well as psychologically. It also affects his feeling of pride and dignity and exposes his future to constant conflict between the egg donor and the surrogate mother. This leaves the door wide open to a great deal of corruption and exploitation of the woman’s body. It becomes a form of declared prostitution that is rejected legally and ethically under the pretext of scientific progress and material gain.

The child is torn between two women: one who carried him and delivered him but is not the owner of the egg; therefore, she is not considered his biological mother. And another woman who did not carry him neither gave birth to him and hence did not suffer. To whom should he belong?

The scholars and jurists had opposing views:
1. One group believes that the real mother is the egg donor (biological mother) and they referred to the Quran, Tradition of the Prophet and logic to substantiate their views.

2. The second group believes that the mother is the one who carried the embryo and delivered the infant and endured the suffering of pregnancy and delivery, which is the surrogate mother. They also cited quotations from the Quran, Sunna and logic.
In the light of what has been said by both groups we believe that the infant should belong to the surrogate mother because the essence of motherhood is sacrifice, patience and forbearance as well as suffering. The surrogate mother is worthy of this title. Besides, she is the one who gave birth to him which confirms the relevant verse of the Quran: "None can be their mothers except those who gave them birth" (Al-Mujadala:2). How can a woman enjoy the privileges of motherhood without having suffered since the early phases of conception till after delivery. "In pain did his mother bear him, and in pain did she give him birth." "In travail upon travail did his mother bear him...". She is worthy of such a noble title.

Third Sub-Chapter
Ethical Basis in Safeguarding Family Ties and Human Interests:

The Prophet (PBUH) said that his mission was: "to accomplish righteous conduct and morals" as if he could foretell that mankind will violate virtuous conduct and encourage vice under the pretext of scientific progress or the arrogance of man would reach the level expressed by Qarun in the Holy verse: "All my acquisitions are obtained through my knowledge."

The Prophet (PBUH) has many sayings in this respect "Of all that is weighed on the Day of Judgement, the heaviest will be man's piety and good conduct." ²

Definition of Conduct:

Scholars have agreed that "kholok" (character or temperament) is a state of mind which urges a person to do certain things without thinking or pondering. Hence, it is inherent in man's nature and give rise to all his acts.

In its plural form the term "akhlak" means the whole set of rules of conduct in a specific human surrounding within a specific time frame. It is an Arabic general term that refers to all human virtues and vice as well as acts, whether good or bad.

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¹) Document on: Tracing Lineage of the Child to the Maternal Side: P. 26 as well as the Fatwas adopted by the Fiqh Academy at its seventh and eighth sessions, Mecca Al-Mukarrama, as well as the recommendations of the Conference on Reproduction in the Light of Islam held in Kuwait, and the seminars and symposia on the same topic.
The ethical system in Islam is based on religious motivation which depends on faith, integrity and the related beliefs, acts, reward and punishment.

Commitment to such moral values has a great impact on protecting the family from disintegration and dissolution. Since Islam is a realistic religion, it has given due consideration to the man’s instinctive desire for procreation. Hence, it stressed its importance and drew up relevant regulations and legislation to strengthen this instinct through closer marital, parental and family ties by adopting legitimate ethical guidelines. Once these regulations are observed, the Muslim society will have an one more happy family to consolidate its unity and to contribute to its solidarity and structure.

Due to the paramount importance of morals in the life of every nation, scholars have launched an appeal to establish an ethical framework for conducting scientific experiments on human beings. Edwards, the well-known pioneer physiologist in in vitro fertilization said that as a result of artificial insemination and relevant branches of cryo-preservation and surrogate mothers, an ad hoc ethical committee should be established.

The first test tube baby was actually born of a surrogate mother and the case was brought before the British court because after delivery she refused to hand over the baby to the egg donor in spite of the fact that she had signed a contract to this effect.1

Therefore, religious and ethical guidelines have to be drawn up to control this process even in non-Muslim societies that allow such practices.

These scientific experiments have generated thorny religious and ethical issues with several ramifications. Their repercussions will undoubtedly affect us. Hence, we have to be shielded by the moral and religious values in this domain and others. We should not allow the manipulation of man’s life. This task was successfully executed by the fiqh academies and Muslim jurists as well.

**The Position of Muslim Jurists Regarding this Thorny Issue:**

The Fiqh Academy has issued at its seventh session in Mecca Al-Mukarrama a Fatwa on test-tube babies in the Muslim World to which most Muslim organs and jurists concur.

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The most important articles of this 'fatwa' are:

1. The wife may be fertilized in vitro or in vivo by the sperms of her husband till conception is realized.

2. In vitro fertilization conducted in a test tube with the oocyte of the wife and the sperm of the husband and then implanted in the uterus of the wife is accepted in principle from the legal point of view. However, in view of doubts that may exist over the circumstances of each case. It should not be resorted to except in emergencies and subject to the following conditions:
   A. Fertilization should be from the sperms of the husband.
   B. Fertilization should be completed when the husband is still alive since death dissolves the marriage contract. Hence, fertilization becomes illegal.
   C. The physician responsible for this process and his assistants, including the nursing staff and laboratory technicians should be trustworthy Muslims because the non-Muslim physician may allow himself to use a zygote fertilized by a person other than the husband or wife.
   D. This process should be conducted by the consent of the couple, and preferably in a Muslim country.

Regarding the 'fatwa' on surrogate mothers, the conference on Human Reproduction and Islam issued a 'fatwa' to this effect: This process is illicit if a third party is involved whether it is the sperm, egg, embryo or uterus.

Conclusions:

1. Islamic Sharia is based on the preservation of religion, soul, wealth, honour and genealogy. By virtue of its provisions, ethical values, realism and its exhaustive nature it can find solutions for the whether during the present or future problems of mankind. All human requirements are reasonably satisfied through Sharia, and Sharia alone.

2. Ethical values represent the fulcrum of any civilization. The more a nation is committed to these values, the more it is capable of protecting its own civilization. Similarly, when it starts to neglect these values, it exposes its very existence to deterioration and destruction. These are the rules decreed by God in this universe.

3. The discoveries and methodologies of science emphasize day after the day the veracity of God and His Oneness as revealed by our religion in the words of God: "Soon will We show them Our signs in the (furthest) regions (of the earth), and in their own souls, until it becomes manifest to them that this is the truth."

4. The guidelines of the Sharia regulating the participation of the Muslim woman in various activities are designed and calculated
according to her constitution and capabilities. Hence, it is not acceptable to turn her a cheap instrument of provocation or for hire. Her human dignity should be well safeguarded as the mother of men, educator of generations and protective fortress of the whole society.

5. The new illegitimate techniques of assisted conception lead to mixing genealogy, violating one's honor, ruining families and losing one's dignity.

6. One should accept the will of God and accept one's destiny because these are the traits of pious believers. However, this does not prevent the individual from benefiting from useful science while excluding all that is harmful in order to avert corruption. In such cases, public interest is preponderant over private interest.

7. Resorting to a surrogate mother implies disrespect for human life, for the noble sentiments of motherhood. It is a diabolic method of illicit reproduction.

8. Seeking treatment is allowed according to the Sharia provided it does not resort to forbidden means, "Seek treatment for your ailment but avoid forbidden means". Treatment becomes a duty when it preserves the life of individuals and treats infertility of any of the married couple.

9. All methods leading to illicit reproduction are the result of Satan's schemes and designs through the help of his Jewish assistants. This is accomplished by provoking lust and unleashing instincts without any moral or religious restrictions to help them control Muslim societies that are not easily accessible to moral pollution.

**Important Recommendations:**

1. Legislation and laws should be enacted to limit manipulating the human aspect of mankind.

2. Establishment of specialized committees of genetic engineers, physicians, Muslim jurists to study such scientific developments for discussion and finding legal solutions for them.

3. Raising of scientific and ethical awareness through the media, particularly through the use of satellites, for disseminating Islamic virtues and discarding vice.

4. Focusing on the Islamic character of Islamic and Arab information media by purging them from harmful and immoral programmes.

5. Establishing a Ministry or organization for the family along the same lines as the Ministry of Youth to raise religious and moral awareness and to seek the help of specialists whenever needed.

6. Focussing on Islamic principles and morals in a modern way in order to attract the younger generations to follow the example set by the Prophet (PBUH), his kith, kin and companions and to take pride in their Islamic identity.
7. Holding seminars and public lectures suitable for young people from both sexes and urging them to attend them.

8. Preventing Muslims from any activities that cause intellectual, moral, or religious harm besides closing down all illicit entertainment establishments as well as relevant balls, tourism and urge the authorities not to allow them in Muslim societies.

9. We refuse to allow our societies to be exposed to moral and religious decadence and dissolution. They have reached technological and scientific arrogance which foretells their imminent fall as expressed in the relevant verses of Surat Younus: "The likeness of the life of the present is as the rain which We send down from the skies: By its mingling arises the produce of the earth - which provides food for men and animals: (it grows) till the earth is clad with its golden ornaments and is decked out (in beauty): the people to whom it belongs think they have all powers of disposal over it: there reaches it Our command by night or by day, and We make it like a harvest clean-mown, as if it had not flourished only the day before! Thus do We explain the signs in detail for those who reflect."

10. In conclusion, we invoke God's help and say: Praise be to God, Lord of the all Worlds.
MULTIPLE PREGNANCY IN ART AND ITS ETHICAL IMPLICATIONS

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The birth of Louise Brown in 1978 has signaled the initiation of assisted reproductive technologies in the management of infertile couples. These techniques which entail direct manipulation of the gamete cells eg. Ova and sperm are considered today as the end of the line treatment for couples who have failed to conceive by the conventional modalities or who did not have hopes to get pregnant previously.

During the last two decades ethical issues in medical care have come to the forefront of public consciousness, with concern focusing on several important areas. Advances in scientific and Technological knowledge compelled biomedical ethics to raise issues on patient’s rights which insisted on steps being taken to protect patient’s welfare and to promote patient’s autonomy.

The great advances in our knowledge in reproductive biology and the development of new procedures have created unexpected and unprecedented public interest in certain aspects of human reproduction, together with dilemmas that were not encountered previously.

In addition, legal, moral, cultural and religious aspects must be taken into account before clinically applying some of these technologies and before addressing their merits in helping the infertile couples.

In all assisted reproductive techniques, the chance of multiple pregnancy is increased when the ovaries are hyperstimulated and when more than one egg or embryo is transferred.

The frequency of occurrence of multiple pregnancy in spontaneous cycles is always quoted as 1:90 for twins, 1:8000 in triplets and 1:700,000 in quadruplets. Twin pregnancy is five times more common in assisted reproductive technologies and triplets, quadruplets and even Quintuplets are much more common events in these techniques.

Although some couples would consider twins as a happy result, there are more problems associated with multiple births, and these
problems become progressively more severe and common with triplets and each additional fetus thereafter. Women carrying a multiple pregnancy may need to spend weeks or even months in bed or in hospital. There is also a greater risk of late miscarriages or premature delivery in multiple pregnancies. Naturally, premature babies may die or require prolonged and intensive care. Statistics indicate that twin pregnancies are associated with four to five fold increased perinatal mortality when compared to singletons. This is due to the main to prematurity and intrauterine growth retardation.

**Complications of Twin Pregnancy:**

**A: Maternal:**
1. Pre-eclampsia- Eclampsia occurs 3 times more common.
2. Premature labour and delivery 75% of all multiple pregnancies are delivered prematurely.
3. Uterine inertia.
4. Placenta previa.
5. Premature separation of placenta.
6. Post partum Haemorrhage.

**B: Fetal:**
   a) Antipartum complications:
      1. Fetal death in-utero.
      2. Congenital anomalies.
      3. Polyhydramnios.
   b) Intrapartum complications:
      1. Premature delivery, still-birth or perinatal mortality.
      2. Premature rupture of membranes occurs in 25% of twins. 50% of triplets and 75% of quadruplet pregnancies.
      3. Abnormal presentations.
      4. Circulatory interference of one fetus to the other.
      5. Prolapse of cord 5 times more common.
      6. Premature separation of placenta before delivery of second twins.
      7. Locked twins.

From the above mentioned it is clear that multiple pregnancy constitutes a real risk and hazard to both mother and fetus. Multiple pregnancy of an order higher than twins involves greater danger for the woman’s health and also for the fetuses which are more likely to be spontaneously aborted or to be delivered prematurely with a higher risk of either dying or being damaged.
Thus, this problem of multiple pregnancy in assisted reproduction calls for medical assistance along two lines.

**A: Prophylactic Measures:**
1. Shifting from IUI in hyperstimulated ovaries.
2. Improved culture techniques to blastocyst stage and replacing one blastocyst.
3. Limiting the number of transferred oocytes.
4. Resorting to natural cycles.
5. Low dose stimulation in PCOS.

**B: Active Measures:**

Multiple pregnancies, if established, can also be prevented by "Embryo Reduction". The termination of one or more fetus in multiple pregnancy where continuation of that pregnancy will severely endanger the life of the mother and where premature delivery will inevitably occur with early loss of all the fetuses is a point of great ethical implication in assisted reproductive technologies.

The moral status of the embryo in the basis on which most of the ethical argument lies. Religious and scientific people have three different points of view in this regard.

The first group conceded that the embryo has no moral status: it is a collection of undifferentiated cells lacking individuality, and thus is not different from any other human tissue.

The second group states that the embryo has the full status of a human being. This is because a new genotype is established during fertilization which may become a human being.

The third group considers the embryo as a potential human being. This is a compromise between the above two views. Being a potential human being, the embryo should be considered with dignity and respect as long as it does not contradict with major social, maternal or other interests.

Consequently, according to the moderate belief that the fetus is a potential human being and considering the maternal risks involved, it may be considered ethically less unacceptable to selectively reduce the number of fetuses than to do nothing. Selective reduction in these cases is not an abortion procedure because the intention is that the pregnancy continues. It is very important, however, that such selective reduction should not be considered as an alternative to very careful monitoring of infertility treatment. If this is done, properly, higher order
multiple pregnancies should occur very infrequently. Also, it should be understood that appropriate informed consent should be obtained before undertaking these procedures.

The question of how many gestations should exist in-utero before the option of selected termination is resorted to is controversial. The consensus, however, is that if the number is more than three gestations, the extra sacs should be terminated.

While performing embryo reduction a definite “ethical code of action” should be stressed upon which entails:

1. The embryo, even if not given full status as a person should always be treated with respect. It is believed that embryos start to feel pain at approximately 18 weeks gestation. Naturally embryo reduction before this time is preferable.

2. The procedure should not be harmful to the remaining fetuses. So far apart from a small risk of spontaneous abortion following reduction no harmful effect was noticed on the surviving fetuses.

3. The procedure should not create serous harm to the mother and father. Proper counseling of the couple before reduction should obviate any psychological harm to both parents.

4. Acceptance of the procedure should be voluntary and after an informed consent.

5. The procedure should not be unduly risky physically. The primary medical ethical obligation as stated in the "Hippocratic oath" is “First do no harm.”

An important component of the ethical considerations is that the procedure not be unduly risky for the mother. Even if an individual is willing to consent to a tremendously risky procedure, it could be argued that there is an ethical obligation or the part of the health professionals not to offer a service that has an unreasonably high likelihood of causing harm.

By improved imaging using vaginal ultrasound probes, and by aspiration of one or more embryo, the number of embryo can be safely reduced. The risk of total pregnancy loss as a result of embryo reduction seems small.

For the future it might be considered optimal to reduce all
multiple pregnancies to singletons since this approach will give the most pronounced decrease in risk for the offspring.

6. Embryo reduction in cases of multiple pregnancies after assisted reproductive technologies should be assessed within the context of other embryo terminations.

   Selective termination in the absence of maternal risks as in sex selection and fetal transplant is definitely considered as abortion and in this case the ethics of abortion applies. Selective termination in cases where the mother is at risk is considered as "therapeutic abortion" and is legitimately acceptable by most if not all health providers.

   Selective termination in cases of genetic disorders for fetuses with metabolic deficiencies or carriers of harmful genes or congenitally abnormal fetuses as "Down's syndrome" is still the subject of ethical, moral, religious and cultural controversy.

   Selective termination of the extranumber of fetuses in assisted reproductive technologies should be ethically accepted as it entails avoiding maternal risks and at the same time increases the liability of the surviving fetuses to reach full term. Thus it is indicated for both maternal and fetal reasons and should not raise ethical or legal problems even with those who consider the embryo as a definite entity from the beginning of conception.

Conclusions:

The issue of "Embryo Reduction" after assisted reproductive technologies is the subject of an intense ethical debate.

The consensus of opinion is that since "Embryo Reduction" is indicated to avoid definite maternal risks and with the intention of continuation of pregnancy, it is ethically acceptable and cannot be considered as an abortion procedure.
Praise be the Lord, the Creator, the Shaper out of naught, the Fashioner. "He bestoweth female (offspring) upon whom He will, and bestoweth male (offspring) upon whom He will; or He couples them, males and females, and He makes barren whom He will." Peace and blessing on the most noble of offspring, our praiseworthy Prophet, on his kith, kin and on his revered companions.

I wish to address in this exposé some aspects of the problems raised by medical techniques, and biological sciences, in particular as regards fertility and pregnancy which have become a widespread and ever-growing phenomenon in contemporary societies, scientifically and practically, as they originate new and unusual fields with such progress, or spread, problems proliferate in depth and in complexity, queries arise as to their assessment, benefit or harm, their possible or impossible acceptability, are they or not permissible?

Such queries are neither theoretical nor illusory calling for absolute philosophical thought, but resting on tangible facts and pose to the physician, the scientist, the legislator, the thinker, the judge, the family and society complex problems from the human, moral, legal, civilizational and religious angles.

Given the need for brevity in this exposé, which does not lend itself to a lengthy review of all such aspects. I will address myself to some of them from a moral perspective. A great number of thinkers and scientists deem that moral principles, despite their numerous sources, share common and rooted bases that provide human criteria which remain constant, in time and place. They also enable to pass judgement on deeds their value and legitimacy because they originate and rest on pure mental axioms.

Moral premises vary according to the thought’s source and to the addressee; they vary as well according to which queries are formulated but, in essence, they remain the same queries and they all revolve about rejection on acceptance of a given assisted medical technique for procreation, are there criteria or limitations whose contravening
constitute an infringement of moral principles or an indulgement in the forbidden?

- Is there a moral or epistemological stand relevant to control of the living embryo or could it be construed as a further control of nature?
- Is it morally permissible to carry out medical or scientific experiments on the lump of flesh before it becomes a foetus? Where does the impediment lie?
- Is it permissible to abort the foetus and deprive him of life, if disfigured or disables?
- Since it is presently medically and scientifically possible to prevent pregnancy, does it justify the control of the specifications of the foetus, such as his gender?

Various criteria could be taken into account which, although deriving from numerous moral norms, originating from various sources lead to major complexities difficult to conciliate. Nonetheless, we find in the reports of numerous committees on morals, established in several countries, a synthesis of attempts as regards present cases. In respect of medical experiments, most reports comprise the following criteria:

(i) It is not permissible to carry out an experiment on an individual without his free-given consent. It is a morally binding criterion, because an individual and any dealings with him are an objective and not a means. It is a criterion that cannot be applied to experiments on the foetus;

(ii) There should be congruence between possible dangers and complications resulting from experiments and the expected scientific results and benefits arising therefrom. This last principle is not as clear-cut, because it is expedient, its criterion being the results produced by the experiment; a criterion that can be contested as it uses the concept of possible and unforeseen dangers which is a statistical criterion. Yet medicine, as a whole, basically safeguards against dangers, although no medical process lacks such dangers;

(iii) To strike a balance between the poor and the affluent; between the rich and poor nations, so that the people of the poor nations do not become the experimented upon in the interest of the affluent. Although this criterion emanates from the principle of equality among individuals, the world - the world of medicine and research - is alien to this equality. The first two criteria are also difficult to apply.

Artificial impregnation within the bonds of matrimony: The semen of the husband fertilizing the ovum of the wife, or the ovum of
the wife is fertilized by the semen of her husband in a test tube and inserted into her uterus and not into the uterus of another woman. This is a medical intervention that does not pose any moral problem. However, if the semen used is that of a man other than the husband, the process is well-nigh infidelity and deceit, although carried out with the consent of the husband and supervised by the physician. Impregnation is then not an attempt to medically treat infertility, but a solution to circumvent the incurable infertility of the spouse by substituting the semen of another man to that of the husband.

This cannot be compared to blood transfusion or organ transplanting, because it involves falsification of the rule of natural biological parenthood. It emanates from the yearning for children which is the purpose of marriage. However, the morality of the marital relationship does not justify parenthood by any means.

This being the case, it is amazing that a number of developed nations, richly endowed with thinkers and moralists to be able to realize such facts, officially allow and encourage the process. This is due to the fact that a number of thinkers, including sometimes men of the cloth, talking on behalf of philosophical or religious associations, only express some reservations as regards such techniques without clearly condemning them.

Moral thinking in respect of such procreation techniques that require a third party derives from the belief that it is the responsibility of the husband who wishes to procreate, of the individual who provides the semen, and of the right of the child to know his biological parents. It also derives from the belief that it is the relationship between parents and child which creates genuine parenthood and sonship in the emotional sense, whether or not the child is from their own loins. Indeed a sentiment that mitigates the importance of natural or technical conditions that surround procreation.

Moreover, such thinkers have come to view the dangers and harm that affect the family as a result of these techniques as a relative matter. Despite the rooted belief that the family is the social cell within which father, mother and child share life, habitat, education and inheritance, they query whether all forms of involvement of third party are likely to adversely affect the concept of the family. Others query the extent to which the family could be considered the sole circle where all the dimensions of fatherhood, motherhood and sonship lay in addition to the human dimension.
Their premise are the factors that constitute the "biological" family, namely:
- The husband and wife being of different genders;
- Marital relationship exists only among living beings;
- The father "dynastic" being the natural biological father.

Referring to anthropological comparisons, they prove that the concept of family does not relate to these factors, neither does it require them, because family is a social concept. Examples abound in time and place of the lack of such factors in structured families and developed societies. They conclude that, since the rules for marriage differ, this clearly reflects the refusal of the various societies to accept the pattern of the biological family as the sole pattern.

The problem aggravates given the stand of these thinkers vis-à-vis artificial impregnation of unmarried women, which is a focus of attention. From a technical perspective, it enables spinsters and widows to procreate without intercourse. Views differ in this regard to the extent of moral support, likening it to adoption which is allowed to spinsters and widows. Most reservations in this respect emanate from two basics:

1. This technique is not meant to solve a medical problem relevant to infertility. How could the impregnation of a woman who is not sterile be viewed as treatment or a right to treatment? Could we say that a woman was entitled to impregnation as she is entitled to cosmetic surgery for example? She can exercise this latter right if she has the means to do so; but can she demand society to help her, given that the 'right to health' or 'right to child' has become an individual right?

2. The insistence of a woman to procreate is not linked to marriage - in countries whose laws allow it - or to a settled relationship with a man, resembling marriage, in lieu of a husband. There are those who try to apply the same reasoning to the single man to the widower, invoking equal rights for both genders. This is clearly arbitrary and deliberately wrong.

In the final analysis, this is how these countries have managed to conciliate between such views and religious beliefs, given that all divine religious oppose the involvement of a third party. They differentiate between the concept of biological parenthood and sonship and its social concept, and allow the medical corps to carry our such
operations for which they lay down codes of ethics, but not always promulgating laws founded on commitments, such as interalia:

- Artificial insemination should only be performed by a physician; its purpose should never be the improvement of the progeny or the choice of a gender;
- The semen is donated, it is not to be traded or publicized;
- The semen is not to be treated or stored, unless it is in licensed and monitored specialized institutions;
- Whoever collects, stores or treats the semen must never reveal the identity of the donor or the insemination process.

Such commitments would preclude attempts to improve the progeny. Yet, we find sperm banks responding to demands for the sperm of others, to protect their children against genetic diseases. The difference between acceptable and unacceptable diseases is neither clear nor settled. Whatever the case may be, it is reasonable to conceive that only children with good genes should be born? And what does good mean?

The foregoing commitments emphasize the stipulation of 'no change' in those countries which believe that money 'corrupts' and vitiates. The fact of its being free of charge eliminates discrimination between the poor and the affluent as regards the 'right to child' and removes the belief that wealth enables the satisfaction of all desires. Moreover, the child could later resent the fact that he was 'bought' from a professional trader in the various semens. The proponents of the 'no charge' principle allege that the sperm freely given is a grant and a donation, a service rendered by 'two spouses' and not by one man, since the donor is married and has the consent of his wife to the 'donation' and 'service rendered freely to two spouses who wish to procreate, and not rendered to one person. This is an attempt to introduce a social concept into the operation, hoping that it will remove, if only partially, the image of adultery which accompanies artificial insemination.

The principle of secrecy in such commitments perturbs when thinking of this unknown man who will invade the family circle and pass to the foetus undesirable genes. Physicians and sperm banks try to appease fears and create a climate of safety through the very facts of secrecy. The donor provides the sperm and then disappears and has no further connection with the operation. The spouses needing insemination have only the physician to deal with and the frozen sperm for whose safety the physician can vouch. This is the manifest: the cure which is the 'insemination' and the 'donor of the sperm' is concealed
behind it. Yet, the operation of legitimate artificial insemination within the bonds of matrimony is carried out by the same physicians by means of the same technical means that are used for illegitimate artificial insemination through the involvement of an alien person. This creates and presumes that the sperm is but a normal product that can be consumed and exchanged irrespective of its produces and consumer. Furthermore, it displays illegitimate operations as a natural extension of acceptable operations. There lies the cleat-cut responsibility of the physician.

**Surrogate Mother:**

In the same context, the surrogate mother raises complex moral and legal problems but appellations differ even in official reports: "compensating mother", "proxy mother", "borrowed uterus", "proxy pregnancy", surrogate uterus", "carrier mother", Fuest mother", etc. Those appellations have of course, not all connotation neutral, they reflect options and debates over considered problems.

The delivering mother is a simple case: the woman wishing to have a child borrows or rents the uterus of another woman to carry the embryo. The latter does not consider it to be her child and intends to hand it over to the borrower as soon as she delivers. In the preface of all American reviews which propose to their clients "services" of such kind, they quote as if there was need for an ancient religious reference - the story of the birth of Ismail - peace be upon him - as related in Genesis. Sarah, the wife of Abraham - peace be upon him - was childless, and had an Egyptian slave called Hagar, She then told her husband: "God has willed be barren; could you turn to my slave so that God may give me a child through her". This is how Ismail was born to Abraham - peace be upon them.

To-day, cases proliferate, delivering women vary according to situations and one operation involves several persons. We shall address two of the most common cases:

**First case:**

The ovum of the wife and the semen of the husband are fertilized in a test tube and the fertilized ovum is inserted into the uterus of a "surrogate mother";

**Second case :**

Artificial insemination is directly performed in the uterus of the "surrogate mother" with the semen of the husband seeking progeny.
The studies carried out over these two cases have varied from a moral perspective: from strong condemnation to consent interspersed with mitigated views.

There are those who equate this operation with the case of the woman who delivers a child in a hospital, refuses to give her name and indicates that she does not want to keep it. The child is registered under "mother unknown", and is directly adopted by the spouses awaiting its delivery. This closely resembles the case of the surrogate mother, as the child is given up by his natural mother as a "donation against payment" to "another mother". This calls for profound thinking about giving up a child and donating him as it connotes adoption but seems most negative in the context of the surrogate mother. All moral justifications of, and objections to, artificial inseminations through a "donor" have been raised about the "carrier mother", with another added the two cases being different. The role of the "mother" is more profound, the bond of the child with her stronger, and her contribution by far greater than that of the man who provides his semen.

Thus, the clear-cut moral conclusions negate the loan of a uterus in the context of marriage and the concept of motherhood, and equate it with a form of betrayal and fraud that differentiates between the psychological and moral components of the family. Moreover, in most cases, it is no more that obnoxious trade, as if the newborn is but animal or plant to be disposed of at will, and lacks any of the human characteristics.

Queries have also been raised about the maternal feelings of the biological mother and the innate love that links her to the newborn. The foetus in the womb of his mother is not merely a carried senseless animal or inorganic body: he feels as she does and hears the beats of her heart. Moreover, the hours immediately following delivery are crucial in entrenching the bond between the mother and the newborn. He will definitely be adversely affected by being separated from his natural mother even shortly after delivery.

Despite these moral objections, the same thinking methodology, that disregards the work of balanced morals committees, deems it a social problem because, according to its proponents, family relationship is merely a social and legal relationship, and it is up to society to answer all the queries raised. Such answer must involve cultural and sociological arguments, interalia, sonship, fatherhood, motherhood, in addition to economic arguments; namely, how costly is the operation? Who bears the cost, as well as ethical arguments: who will be adversely
affected by these operations, in particular the child? Were society to reply, will this be reflected in laws?

**Legal Status:**

The conjunction of morals codification and legislation is most important, because most philosophical research attempt to conciliate the various criteria, focusing without exception in the principle of respect of man who is the sole basis of morals, meaning that to deal with the body is not an end, as it is an extension of the person and a basic characteristic and component of him. Dealing with others must emanate from recognition of him as a free person.

The moral thinking, which is however difficult to apply, remains theoretical; it remains a judgement of values rather than a judgement of facts, contrary to law which basically seeks to determine precise rules and set criteria for a regulated and legitimate understanding and co-existence within a society whose levels and components greatly differ; it is applied and not theoretical.

From a legal perspective, artificial insemination outside the bonds of matrimony: the semen of a husband replaced by that of another man is, at the least, fraud and deceit carried out by the physician to endow an undeserving person with fatherhood, hand over a child to him, to be given the name of his legal father and live in a family he believes is his. A great number of "developed" nations not only accept such situations, but social security often bear the expenses of such operations and assist the mother during pregnancy and delivery. They do not say "illegal" but state "there is a legal void".

I shall relate three factual cases which went to court, before concluding with some general considerations:

**First case:** A husband had cancer in the testicles which, if treated would be permanently barren. He gave some of his sperm for refrigeration to be used if needed, and died shortly afterwards in a car accident. Six months after the accident, his widow asked for the sperm of her dead husband which was deposited in the sperm bank, to be impregnated with it. The bank refused stating that the sperm was given only to the two spouses and not to one of them. Some of the other banks supported the widow whereas some opposed her. The court finally ruled in favor of the widow stating that the refrigerated sperm was part of the property of the deceased which should go to his rightful heirs, and the legatee was certified. It is known as the Rennes case, the name of the French city where the events unfolded. Truly a legal void.
Second case: The Nice court ruled in favor of a husband who denied paternity of a child born to his wife who was impregnated with the sperm of a third party, alleging that he had not allowed the operation. The paternity was denied as a result of the proven infertility of the husband and no legal values was attached to the refusal by the husband of the impregnation of his wife with the sperm of a third party. It is known as the "Nice case".

Some of the countries which had long ascribed the child to his married parents, a clear-cut concept of sonship, are introducing tangible amendments and changes in the laws of sonship to connote "acquiring the status" meaning the status of sonhood within a family composed of "his father" or "his mother", with a socio-tailoring laws on the well expressed logical context for the family.

Moreover they make it possible to contest sonship before courts denying and voiding it in the light of their biological concept. In the preceding case, sonship was repudiated and precedence was given to the biological context of parenthood, although contradicting the social context. It had become possible for the mother to wrench the status of fatherhood from her husband if she could prove that artificial impregnation concealed in fact an act tantamount to adultery. It is noteworthy that the court, in the preceding case, did not consider artificial impregnation through a third party an illegal act to be penalized or even an infringement of morals to be blamed.

It is also noteworthy that the ruling is not in favor of the child who was denied his "social father", namely the barren husband who should have legally been his. Moreover, he would never know his biological "father" because of the secrecy surrounding artificial impregnation through a borrowed sperm.

Third case: An American couple rented, against payment of a given sum, the services of a married woman to be impregnated with the sperm of the husband who had hired her uterus. A contract was concluded whereby the newborn would be immediately handed over to the aforementioned couple. When delivered, the child was discovered to be disabled with a small cranium and would remain seriously retarded. The hiring husband refused to recognize the child and refused as well to pay the fee agreed upon, alleging that the child was not his. The court ruled, on the basis of medical analysis, that the child be handed over to the hiring husband. Yet, of what value is that ruling when the "father" insists on refusing? The child has, in fact, no family neither
according to the social concept, not to the sociological. The couple refused to have him live with them, and he was left in a nursery with his expenses borne by an insurance company.

It is obvious that the borrowing of a uterus is illegal in America and elsewhere, and commitment to hand over the newborn cannot be enforced if the pregnant women decides to keep him after delivery. The law even penalizes her if it is proven that she was hired.

Codification in this field has become most complex, and superficial thought cannot be a criterion for reasoning, specially if the purpose is to closely link it to moral thought. Moreover, codification fulfills a need and does not attempt to involve itself in the manifold human behavior, unless they run counter to a basic legal principle.

In fact, a great many complexities arise from the dissociation of the natural family concept from social concepts. Jurists try to find legislative bases that would cater for the pressing need for a child, interalia, "the right to child", which cannot stand as a legal principle, as it is not an extension to the right to health or to treatment. Moreover, society cannot be compelled to provide a child in a spirit of solidarity to whomever wishes for one, through the medical technique he chooses.

The legal problem nowadays arises from attempts to endorse ethical requirements as human norms. Legal bases, which cover prohibitions and restraints contradict individual freedom, without which there can be no morals.

In all societies and political systems, precedence is now given to freedom before morals, and the major value in most societies is not "good" or "legitimate", but freedom with a permissive connotation that makes it possible to violate some moral rules without moral legal sanctions. Everything else is secondary. Everyone believes in his right to this or that, and everyone deems it his right to submit a claim to the country or to society as if it was theirs to grant.

The Overall Islamic Perspective:
Despite the wide ranging contemporary intellectual and philosophical thought and the intellectual and useful contributions which have left indelible marks, the major arguments regarding problems relevant to medical techniques to assist procreation have, at their origin, the scientific progress in the genetic field. This progress has brought about changes in the basic concepts of the family and society systems, the use of medical experiments of the choice of the gender of the progeny. Furthermore, the morals void reflects on all the
queries raised about their various and numerous facets. Such queries cannot be taken up and dealt with from the moral angle solely as the answer cannot be limited to whether it is good or bad, permissible or not, or limited to criteria and conditions that should underlie the choice of a technique over another. Such moral answer is possible when the individual embarks on an act that will not affect him personally. But if, as in the case of the techniques under consideration, the act affects the individual himself, it is not simple, as it endows the human will with a new dimension, in the control over the human entity and existence. Moralists, themselves, have thus felt the need to widen and renew the scope of their philosophical thought, and evolved what is to-day called bioethics.

I very much fear that said bio-ethics could become a mask of a screen for moral leniency, or to exploit sound thought, per se, if placed in its proper context, such as the freedom of scientific research, the neutrality of science, or the impossibility to anticipate the benefits of harm that might ensue from scientific progress, in pursuance of the dangerous view whose proponents allege that modern sciences is the sole source of knowledge, and that all previous values should be reviewed, and only the ethics of knowledge retained, according to them, is the only criterion that befits the contemporary world.

The legal field is still seeking firm bases to conciliate moral with human norms; to conciliate what contemporary societies expect with which laws they should respect, although this is a situation in rapid change. This conciliation poses difficulties to a number of countries, when establishing consultative groups and committees on morals apart from the legislative and legal body, where none of their members are jurists.

These queries in view of their nature, number and ramifications, cannot be answered with opinions and guesses. They call for in-depth thinking about criteria, bases and principles; in other terms, they cannot be answered in conjunction from the legal and moral angles, unless we have an overall outlook.

Such outlook does not separate morals from legislation and it enables thought; moreover, Ijtihad is at hand. This is the Islamic outlook which is clear-cut, in its basis and methodology. It deems that other "advanced" attempts which separate legislation as a social phenomenon from morals are a fractionated, provisional and weak philosophy.

The legal meaning and its purpose, its relevant inducements,
and the right arising therefrom are clear-cut and known. It encompasses balance, individual and social justice, kindness and the responsibility sought by the spirit of Islamic Shari'a.

All new issues not covered by a Quranic text, Hadith or consensus are submitted to the Ijtihad of learned people who consider them in the spirit of Islamic legislation, its rules, sources and principles, and reflect them in the ruling, adding the rules of origin, and endeavoring to secure the objectives of Shari'a which are to safeguard religion, honor, wealth, mind and spirit.

There is a consensus among Fuqaha'a to condone artificial insemination with the sperm of the husband if the need arises and if both spouses agree to it, ascertaining that the sperm is that of the husband. The same consensus applies to test tube babies, under the same conditions. As well as under supervision of obviate any harm to the mother or to the foetus.

However, as regards artificial insemination with the sperm of a man other than that of the husband, they categorically forbid it deeming it repulsive and offensive, reducing man to animal status and tantamount to adultery. Although not fulfilling all the conditions liable to pertinent penalty, even if the husband and physician agree, because of the genealogical confusion.

Genealogy in Islam is neither a gift to be granted nor clothes to be removed; it is not subject to the will of people or to law and does not require recognition. Adoption and to be ascribed to a person other than the legal father is not permissible (haram).

Some Shi’a Ulema referred to a case that somewhat resembled artificial impregnation with a semen other than that of the husband. Hassan ibn Ali - may God bless him - was told of a woman who after intercourse with her husband, practiced a homosexual all with a virgin slave and thrust the sperm in her womb and the slave became pregnant. Hassan -May God bless him - replied that the woman should pay a dowry to the virgin slave, since no virgin slaves delivered, and the woman should be stoned because she was married.

When the slave delivered, the child as to be returned to his father, whose sperm was at the origin of the pregnancy and the slave was to be whipped with lash. Some Shi’a Fuqaha’a objected to the return of the child to the father whose sperm it was, because he was not born within the bonds of matrimony. It is known that the child of
adultery is not attached to his father but to his mother if she is a free woman; if a slave, he is attached to her master.

As to the views of Fuqaha’a on the proxy uterus, the situation is not fully clarified. I only received a single answer whose author expressed strong reservations. This is self-explanatory, because Islam does not welcome such operation, however, they may be.

Finally, Islam is neither anti-science nor anti-medicine; man was given the caliphate of the world and nature is subservient to him. However, the door to research and experiments is not left widely open without Shari’a restrictions and criteria to avoid whatever might lead to the destroyal of, or change in God’s creation or the disturbance of the basis of society or the Ummah.

The honor of man which extends to the family unit and to society as a whole is one of the bases of the Islamic outlook which covers all the components of morals and legislation. Muslim thinkers are called upon to-day to intensify research with a view to clearly identify Islamic stands, comparing them with those of other religions and clearing the way for the sons of Islam who do not know how to face the problem of infertility.

May God bless our endeavors.
IS IT PERMISSIBLE FROM AN ETHICAL AND ISLAMIC PERSPECTIVE TO SPECIFY THE GENDER OF THE EMBRYO? OR TO ABORT IT IF IT IS NOT THE GENDER SOUGHT

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In the Name of Allah, Most Merciful, Most Compassionate

The Almighty sayeth: "He bestoweth female (offspring) upon whom He will, and bestoweth male (offspring) upon whom He will; or He couples them, males and females, and He makes barren whom He will. He is All Knowing, All Powerful." (Counsel, 45-50)

"O mankind! Lo! We have created you male and female." (Apartment, 13)

"Allah Knoweth that which every female beareth and that which the womb contain, and that which they grow. And everything with Him is measured." (Thunder, 8).

"O mankind! If Ye are in doubt about Resurrection, then lo! We have created you from dust, then from little lump of flesh formed and unformed, that We make (it) clear for you. And We cause what We will to remain I the wombs of an appointed time, and afterwards We bring you forth as children." (Pilgrimage, 5).

"O mankind! Abide by your duty to your Lord who created you from a single soul and from it created its mate and from them twain spread a multitude of men and women. Be careful of your duty towards Allah in Whom you claim (your rights) of one another and towards the wombs (that bore you)." (Women, 1).

Marriage is one of the main purposes of life, as it secures procreation and multiplies mankind. Pondering over these Quranic verses, the might of the Almighty comes to the fore: To Him belongs the heavens and the earth; He creates whom He wills; He bestows sons upon whom He wills and daughters upon whom He wills; He, alone, determines the gender; He grants us the gift of fertility or makes barren whom He wills. He is All-Knowing, All Powerful and sustenance is His to give, in His wisdom and might.

Creation is His to command, and He explains to His servants that He creates males and females. He reigns Supreme in the heavens
and earth; He bestows and denies; no thwarting of His decree. He is the sole arbiter.

He sets the laws for this world, dictating its balance so that no species could overcome another. Hence, when we look at the distribution of genders in all communities, we note that no gender exceeds by far the other. Should that community be the victim of natural disasters, wars of epidemics and the toll of death among one gender be higher than the other, He, in His might, restores the balance. God created mankind according to this amazing pattern to demonstrate to us His supreme power and wisdom. Al-Zomokhshory writes: He who created man from dust first and then from a drop (of seed) with no similarity between dust and water, and then created from the drop (of seed) a clot, again with no similarity between them, and from the clot a lump of flesh to become bones can indeed recreate what He started, because how easy is re-creation compared to creation (Al-Kashaf 142-3) "We settle in the wombs what We wish".

In the Surat Women, the Almighty addresses mankind to make them aware of His might and oneness: "O mankind ! abide by your duty to your Lord Who created you from a single soul" from a single soul, your father Adam, "and from it created its mate" and from this single soul created his wife Eve "and from them twain spreads a multitude of men and women".

This is the knowledge of God. As to man, he is limited to the knowledge of what is being shared in the womb after intercourse, whether male of female. It is knowledge of something that exists, but the Almighty has knowledge of the transcendental.

The Almighty informed us of the phases of formation of man: dust, drop(of seed), lump of flesh, and bones.

In his book (Gameh Al-Ouloum wal Ihkam) Ibn Ragab al-Hambali relates that a group of men sitting with Omar Ibn al-Khattab - may God bless him - told him that there were those who claimed that "Azl" (not to have intercourse) was the minor condition of being buried alive (Ma'ouda). Then Ali Ibn Abi Taleb - may God bless him - replied that no living person could be buried alive, unless she had undergone the seven phases of formation: clay, drop (of seed), clot, little lump, bones, flesh and than a new creation, and Omar said: You are right Ali.

The Almighty sayeth: "Verily We created man from a product of wet earth; then placed him as a drop (of seed) in a safe place;
then fashioned We the drop a clot, then fashioned We the clot a little lump, then fashioned We the little lump bones, then clothed the bones with flesh, and then produced him as another creation. So blessed be Allah, the Best of Creators." (Al-Mu'minun, 12-14)

"Specialized doctors have recently tried to separate male from female spermatozoon but the results were never 100% accurate, under the best conditions they had 80% success, and from 15 to 20% fail on the other side.

Let us suppose that a husband wished to impregnate his wife witheither male or female spermatozoon, how could he separate one from the other? Were this separation to be feasible, how could one ensure that this semen or ovum fertilized by male spermatozoon separated by the new scientific techniques, such as MESA, ICSI + or TESA+ICSI, would cling to the uterine wall?

In the Seminar on procreation held in Jordan, under the aegis of the Islamic Institute, in 1994, our scientists allowed such operations in very few cases, such as the case of the woman threatened by divorce, or whose married life was unsettled, or who only bore girls. But, as we said previously the separation of the spermatozoon is never 100% successful. One can never get the gender on demand, and all such attempts and experiments by cloning are but jesting and gaming with the fate of this universe; they are manifest sedition. No one can change the creation of God.

Since several decades, amazing medical achievements have proliferated, but the sound procreation method has remained unchanged, and the innate nature of procreation of mankind is still what it was. The staunch believer, firmly committed to the Holy Quran and the blessed Sunna enhances his belief in the Almighty whenever he is faced with what is bewitching, or doubt is shown about his Creator and Originator of his existence.

To specify the gender of the foetus could have dire consequences and lead to illegitimate and wrong practices and forces abortion, I particular in societies who are not deterred by their conscience and no longer fear God "Allah sends whom He will astray" and "Allah is no oppressor of (His) servants".

Abortion has spread worldwide, as a result of adultery, permissive laws and the disregard of the sanctity of man. It is also due
to the deteriorated living and social conditions and the numerous types of diseases.

According to statistics published on the Medicine Digest, abortion cases were assessed at millions, in March 1981 about 14 million illegal abortions in developing countries. Since abortion became legal in the United States, in 1973, 15 million women had been aborted by 1981.

The former Soviet Union was the first country in the world to allow abortion by request, without any medical reason. In Yugoslavia, the case was submitted to a committee and up to a three month pregnancy all women were automatically aborted.

A six month pregnancy case was submitted to a higher committee, and in most cases - if not in all of them - abortion was approved.

Abortion is allowed in Britain, Japan and in Scandinavian countries, and abortion cases worldwide have reached the hundred million mark. On the other hand, experiments are ongoing in other parts of the world to innovate in various methods of test tube babies and cloning.

There lie the contradictions in this spurious civilization. One the one hand, it spends millions to enable a barren woman to conceive and, on the other, kills millions of embryo annually. Claiming to be the champion of mankind, the protector of human life and democracy in the world and the defender of the freedom of peoples, it kills millions of men senselessly. The advocates of this civilization carry out experiments in their laboratories to reduce mortality in human societies, they defend foundlings (the progeny of adultery) and provide them with asylums and recreation areas; yet they deliberately kill millions for no reason whatsoever. The Almighty sayeth in this connection: "For that cause We decreed for the Children of Israel that whosoever killeth a human being for other than manslaughter or corruption in the earth it shall be as if he has killed all mankind." (Al-Ma’ida, 32)

To abort because the foetus does not have the desired gender is a criminal abortion, because it is killing a living embryo. This was the practice in the former communist bloc and in some hospitals which perform such operations against payment of exorbitant fees.
On page 315 of the book "The practice of contraception" one reads: "Contraception is meant to eliminate abortion" And yet both contraception and abortion are widespread, specially in developing countries. In South Korea, abortion accounts for 33% in the reduced number of birth and contraception for 67% of this percentage. Abortion is also allowed in Switzerland and some Asian countries as well as in some Arab countries, namely Tunisia, during the first three months of pregnancy.

According to the statistics of the Encyclopedia Britannica 50% of pregnancies are ended through criminal abortion, whether or not approved by law, as in France and Japan. 25% of pregnancies are aborted in West Germany, Holland and Denmark (see Encyclopedia Britannica 1069-11).

Repeated forced abortion have adverse effect on the reproductive system, the uterus, the tubes and the cervix, and may even lead to the death of the aborting woman. In case of chronic inflammations, ensuing in uterine involution, the women can become barren or if she conceives, she might be prone to recurring abortion.

Most criminal abortions are performed on unmarried girls by legal abortions are usually requested by married women.

There are women who are most eager to conceive and seek treatment after treatment to become pregnant. When God blesses them with sons and daughters, and they become pregnant once again, they feel thunderstruck and rush to have an abortion. They allege, as reason, the lack of space in their homes, the difficult financial conditions, or the untenable social status. They go from clinic to hospital to abort the foetus which is already formed.

We live such hypocrisy in our societies. Some women give as excuse for abortion that they have taken some medicines or contraceptive pills harmful to the foetus or that they have a disease that makes it imperative to abort.

Adultery has spread in foreign as well as in Muslim societies and the proddings of conscience have waned in all parts of the world and, as a result, abortion is on the increase, whether legally or illegally. A Hadith of the Prophet (PBUH) says: "Before Judgement Day people will copulate in streets like beasts." Related by Al-Tabarani quoting Ibn Omar.
Another Hadith says: "Before Judgement Day, the women will get laid in the middle of the street and no one will disapprove. The disapproving will merely say: 'if they could but stay by the side of the street'" related by al-Hakim quoting Abu Horaira - God bless him.

I wish to add that I have personally seen such situation and could not do anything about it, the Prophet (pbuh) indeed spoke the truth.

The abortion approved by Shari'a is the one dictated by a serious disease of the pregnant mother, which renders both continued pregnancy and delivery dangerous. Physicians must strike a parallel between the danger of a continued pregnancy in the case of sickness of the pregnant woman, and abortion. Some Fuqaha’a deem that the pregnant woman should be asked her preference: continues pregnancy, although sick, or abortion to avoid the risk of death.
In the Name of Allah, Most Merciful, Most compassionate

"Praise be to Allah who taught man what he know not." and peace and blessings upon the Prophet (PBUH) who said: "Whomsoever acts upon his knowledge Allah shall endow him with knowledge of what he know not." Progress in all walks of life is practically sweeping away religious values in the East and West, because it is achieved without any ethical and religious criteria, and relies on the data provided by scientific experiments, transgressing in total disregard basic principles to encourage the scientific revolution in the fields of genetics, the treatment of infertility, cloning and other fields relevant to man, his entity, his food, his medication and most aspects of his life.

Islamic Shari'a and its Fiqh, characterized by moral criteria, and the great care with which they surround man and mankind as a whole, man being entrusted with the caliphate of the universe by God Almighty, do not object to this scientific progress, provided it remains within the context of values, seeks the well-being of mankind without transgressing the limitations set by Shari'a and religion to protect human beings, whether males of females, because the family is the natural nucleus created by the two spouses when able to procreate.

Types of Medically Assisted Conception:
Medically assisted conception could either be external (test tube babies) or internal (artificial insemination). In both cases, there is a medical intervention because of an impediment to pregnancy through physical intercourse. The embryo is conceived by the seed of the man mingling with the ovum of the woman in the uterus.

The Almighty sayeth: "We created man from a drop of thickened fluid." (Al-Imran, 2)

This is the natural way in the absence of impediments. Physical intercourse engenders, by the will of God, a child. If this is impossible, the individual seeks treatment, but if the treatment fails to achieve the desired result, the only recourse is assisted medical fertilization, according to the prescribed criteria of a society attached to virtue and determined to apply the provisions of Shari'a.
1. In-vitro Fertilization (test tube babies):
This is a method applied to a woman who cannot conceive because of certain factors. The most common impediment to natural procreation are tubal blocks. The physician must then resort to external fertilization: An ovum is extracted at a given time and added to the semen of the man in an external container, and when they cling, they are left until they divide into the phase two of four or eight cells. The physician then sucks them with a special syringe and injects them in the uterine cavity, precisely in the membrane lining the uterus within a given time after the extraction of the ova.

2. Internal fertilization (artificial insemination):
This method is applied when the semen is scarce and somewhat inert, in cases of sexual weakness and incomplete erection, or repulsion and other similar cases. The physician then intervenes to treat the semen of the husband and then injects it in the uterus of the wife at the time of ovulation. Then by the grace of God, internal fertilization bears fruit.

Ruling on In-vitro Fertilization (test tube babies):
Necessities legitimate the forbidden. If pregnancy can occur in no other way, as confirmed by an honest skilled physician who advised this method, Shari’a then allows it since the semen is that of the husband and the ovum that of the wife. After in-vitro fertilization, the zygote is injected in the membrane lining the uterus. But, if one of the three factors is changed: the semen, the ovum or the uterus, the method is forbidden, because it becomes illegitimate. If the semen of the husband is replaced by another, the pregnancy is adultery or almost adultery, because the semen is not that of the husband. This also applies to the other two factors. If the husband ignores that the semen is not his, the child will then be ascribed to him, as the Prophet (PBUH) said - related by Bukhari and Muslim, quoting Aisha, God bless her - “The child is that of the marriage bed, and to the adulterer ostracism.”

If the husband is apprised of the deed, he can repudiate parenthood by cursing if he has absolute proof that the child is not of his loins.

Ruling on Internal Fertilization (artificial insemination):
If what is injected in the vagina of the woman is the semen of her husband with no addition of other semen, Shari’a allows it, if pregnancy is not possible through normal intercourse. The wife is forbidden to be inseminated with a semen other than that of her
husband, because it is almost adultery which Shari'a forbids. The physician is also forbidden to participate in such operations, because what leads to what Shari'a forbids is also forbidden.

**Other Medically Assisted Conception Methods:**
Methods other than those of internal and external fertilization above-mentioned are forbidden by Shari'a, because they connote adultery, and in order to ward off the corruption ensuing from contravening the criteria set by contemporary Islamic Fiqh in this regard, in addition to what can be read in the works on doctrinal Fiqh relevant to that issue.

**Conclusion :**
Medical assisted conception is permissible if pregnancy cannot be secured otherwise, provided the semen is that of the husband and the ovum that of the wife, whether in the case of internal or external fertilization.

Peace and blessings be upon the Prophet, his kith and kin and companions.
FINAL COMMUNIQUE AND RECOMMENDATIONS

Praise be to God, to whom praise should go alone, and peace and blessings upon the seal of the Prophets, on his kith and kin and companions.

Islam safeguards a sound genealogy, urges marriage, legislates its provisions and all other aspects that secure the stability of the family, since the birth of man till the day he dies. In other terms, Islam regulates the life of man at best, with wisdom and justice, including charity, giving due consideration to public well-being over personal well-being, in particular as regards human procreation, as the latter is not limited to the husband and wife alone, but extends to the family, to society and to the world as a whole. Given the importance of genealogy in Islam, it ascertained its purity from any blemish or doubt as it did in all affairs of men.

To safeguard genealogy, Islam forbids adultery, and prescribed the Idda (period during which the divorced woman or widow cannot remarry) after consummation of a legal marriage. Islam also forbids adoption, that is for a couple to ascribe a child to themselves who is not theirs, although fully aware of the fact. This is meant to protect man and safeguard the rights of the family as prescribed by Islamic Shari’a.

Islam, attaching great importance to genealogy and addressing it with circumspection, regulates the relationship between man and woman and their coupling, provided it is within the bonds of a genuine marriage contract, to know the seed of man which is at the origin of the child. Although Shari’a sources do not directly refer to medically assisted conception, the very same sources legislate in favor of the family and procreation and encourage them, encouraging therefore the use of various methods to treat infertility.

The seminar commends the serious and fruitful efforts made to set criteria and a moral code to assisted medical fertilization, such as, interalia, the 1980 Fatwa of Al-Azhar al-Sharif, the 1984 Fatwa of the Fiqh Academy of Makka, the 1986-1990 Fatwas of the Fiqh Academy attached to the Organization of the Islamic Conference, the 1991 Fatwa published in the guide book of the International Islamic Center for Population Studies and Research of Al-Azhar University, the 1993 Fatwa of the ISESCO and the World Islamic Da’wa Association Seminar, held in Qatar, on the moral repercussions of the researches submitted in genetics, and the 1994 Fatwa of the Jordanian Islamic
Fiqh Association for Medical Sciences whose conclusions were the following:

1. To ensure that medically assisted conception is carried out for a married couple, neither divorced nor widowed, when there is medical reason for that type of treatment;
2. To ensure that the semen is that of the husband;
3. To ensure that the ovum to be fertilized is that of the wife;
4. To ensure that the woman bearing the zygote is the wife whose ovum was fertilized with the semen of the husband;
5. To ensure that there is no involvement of a third party, in the form of a donation of a seed, an ovum, a cell, an embryo or a uterus;
6. To refrain from any insemination assisted by modern techniques after a final divorce or death of the spouse;
7. To refrain from resorting to medically assisted conception unless proven medically necessary and not for any other reason repudiated by Shari'a;
8. Pregnancy before or after menopause is extremely dangerous for both mother and child, also involving a third party and, accordingly is unacceptable in the Muslim world.

The present Seminar considered present developments and pending issues and came out with the following recommendations and proposals.

**RECOMMENDATIONS AND PROPOSALS :**

**Recommendations :**

1. To set up a committee specialized in medically assisted conception and genetics at Muslim world level. It shall, interalia, recommend the establishment of a Standing Committee for Shari'a medical ethics in Islamic countries, to be approved by governments. It shall draw up regulations for the centers specialized in medically assisted conception and genetics, and be entitled to supervise the centers operating in this field to ascertain that such centers abide by the regulation and criteria. It shall also follow-up scientific developments, consider them and seek the medical and Shari'a solution therefor;
2. To set up a Central Islamic Association to provide material assistance to the Muslim countries unable to consolidate medically assisted conception centers, and urge affluent Muslims to devote part of their charities to that end, given the fact that infertility must be treated;
3. To prepare a guide book for medically assisted conception centers in the Muslim world, with a view to facilitating the exchange of expertise and information among such centers;

4. To request Muslim scientists to adopt unified stands vis-à-vis pending issues relevant to medically assisted conception;

5. To request Muslim countries to include medically assisted conception in their reproductive health programs;

6. To recommend that cultural and social impediments to medically assisted conception governed by Islamic ethics and criteria be eradicated;

7. To urge the use of an accurate language and terminology in the field of medically assisted conception.

Proposals:
1. That the fertilized ovum be injected in the uterus of the woman who had provided the ovum, and living within the bonds of a Shari'a marriage contract, and not in the uterus of another woman;
2. That the team supervising the treatment endeavor at best to reduce the number of embryo carried;
3. That the treating team not inject more than three zygotes in one cycle, unless the need arises, and according to the merit of each case;
4. That in the case of multiple embryo, some of them be removed if they pose a danger to the life of the mother or threaten a continued pregnancy, provided a prior lucid permission was given by the two spouses, and the operation is carried out in the first forty days of pregnancy;
5. That zygotes, sperms, ova or reproductive cells are not to be refrigerated or stores, unless utmost care is taken to avoid genealogical confusion or manipulation. Ova externally fertilized, exceeding 3 or 4, may be refrigerated and remain the property of the two spouses. They may be used in case of extreme need during a second treatment round, if the first has failed, or if the couple wishes to have another child provided the marriage is still valid;
6. That the storage of sperms, ova or zygotes not exceed one year, unless the spouses wish otherwise, they are to be destroyed three months after the time limit;
7. That such cells are only meant to facilitate pregnancy and, under no circumstance, are to be used for commercial purposes;
8. That, in case of pressing need, the excess zygotes and ova may be used for experiments on storage and treatment of infertility, provided a prior free and lucid permission is given by the two spouses. Under no circumstance are said zygotes transferred to the uterus of another woman. Moreover, they are not kept beyond a fortnight;

9. That the choice of the gender, in the first phases: that of the sperm or zygote is allowed for treatment purposes alone. It is not allowed for social purposes, such as preferring a gender over another, unless necessary and according to the merit of each case;

10. That a law be promulgated regulating the establishment of assisted medical fertilization centers as a reference to other Muslim countries under licensing institutes operating in that field.

The Seminar proposes the following:

I. Licensing of the Institute:

The institution must fulfill the conditions of a public medical institute. For licensing, the institution must be equipped with the following:

a) a laboratory for fertilization and insemination;
b) an operation theater for gynaecology and delivery;
c) Clinical pathology laboratory;
d) a residence room;
e) a room for the collection of semen samples;
f) a place for patients to stay overnight;
g) the following basic equipment
   - an ultra-sound photographic apparatus
   - a microscope to examine ova
   - a microscope to examine semen
   - incubators to store cells
   - anesthetic facilities
   - a place equipped to examine the laminar flow

II. Condition for Staff Members:

- They must be licensed to practice in that field;
- The technical directors of the institution must be at the level of a consultant in the various branches of gynaecology or andrology. He must hold a Ph. D. or an equivalent degree and have at least five years of practical experience;
- Staff members must be at the highest technical and ethical levels;
- If a staff member is found guilty of a dishonorable act, his license is cancelled and he is forbidden to pursue his career.
III. Personnel:
A specialist in gynaecology, in andrology if possible, in clinical pathology, and in genetics. In the cases of the latter, he must have at least one year experience in that field.

IV. Paramedical staff:
An adequate number of qualified personnel and of a nursing staff.

V. Conditions Governing Work:
1. This type of treatment is not to be applied to any of the spouses separately;
2. There must be a certified legal marriage;
3. No cell, zygote, or ova can be sold or donated by a third party;
4. No zygote may be transferred to the uterus of other women;
5. No treatment may be started before a precise diagnosis of the case;
6. This type of treatment is not to be applied before two years have elapsed after the marriage, unless it is proven to be the only method of treatment or if there is a valid reason for it;
7. Before starting treatment, there must be a written report on the case, including the treatment plan;
8. There must be a prior lucid approval of the two spouses to undertake the treatment.

Treatment should as far as possible take into account simple methods and a medical sequence, namely:
- Medicines, surgery, artificial insemination, external fertilization or treatment under microscope;
- The treatment plan approved may not be changed without the approval of the supervising body or the prior lucid permission of the two spouses;
- The ova or zygote, in excess of the treatment needs may not be stored or discarded without the approval of the two spouses and notification to the supervising body;
- Files of patient cases comprising all data, including the rate of success and implications, must be kept for a period not under five years, and the supervising body is entitled to look into them;
- The supervising body must be appraised of the treatment to be given and notified of any proposed changes.

VI. The Supervising Body is established by a responsible authority and shall be composed of the following:
2. A representative of the responsible Shari'a authority.
3. A representative of the Ministry of Justice.
4. Two specialists in the field, in addition to the General Secretariat and the personnel (back-up organ).

**VII. Functions of the Supervising Body:**

1. It shall issue licenses to the institution concerned and withdraw them should the need arise (cessation of work);
2. It shall issue licenses to the staff members;
3. It shall certify certificates of expertise;
4. It shall be forwarded technical reports from each institution, follow-up the treatment plan and rectify it should the need arise;
5. It shall be entitled to inspection and to act as judicial body to ensure the sound conduct of work;
6. It shall arbitrate between institutions and patients in case of conflict and between institutions operating in the same field;
7. It shall set the Shari’a, ethical and legal criteria regulating medical activities and scientific research;
8. It shall issue licenses allowing the use of modern techniques;
9. It shall summon contravening staff members before penitentiary and supervisory organs.