

AN EVALUATION OF IN-VITRO FERTILIZATION A SOCIO-RELIGIOUS PERSPECTIVE

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Abstract

Procreation is common to all human beings but a number of men and women of the reproductive age in different parts of the world face the challenge of infertility. The only solution to infertility prior to the emergence of Assisted Reproductive Technology (ART) viz-a-viz In-vitro fertilization (IVF) was to accept one's fate or adopt a baby. This IVF is a specialized technique by which an ovum, especially a human one, is fertilized by sperm outside the body done in a laboratory tube, glass or dish, with the resulting embryo later implanted in the uterus for gestation. This became a revolution in the treatment of infertility from 1978 when the first live birth from IVF, a daughter, Louise Brown arrived. IVF became a "brave new world" of possibilities of giving birth. However, it has been a subject of moral, social status, and Faith controversy. This work has, therefore, evaluated the technology and technique of IVF and touched on ethical concerns from the Social-Religious perspective, drawing upon primary and secondary sources of information contained in existing publications. The study concludes that the technology itself is right but some aspects of its application are wrong thus recommends, among others, that modern scientific advances have so much to offer, but unbiased ethical and religious principles should guild their practice and application.

1. Introduction

Procreation or reproduction is common to all human whether religious or non religious and couples have known and practiced only one process over the years, which is natural. This one way process limited the possibility of production only to the natural means in the time past. There were therefore a number of men and women of reproductive age in different areas of the world who faced the challenge of infertility. The world health organization (WHO) (1992) had it that approximately 8 – 10% of couples in the industrialized

countries have problems with infertility. Shad (2013) opines that 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 problem. When extrapolated to the global population, this means that 50 – 80 million people may be suffering from infertility”. This problem is attributed to many factors, which until the emergence of the contemporary advances in medical technology viz-a-viz in-vitro fertilization, the solution was to accept one’s fate and move with life or to adopt a child. In-vitro fertilization (IVF) has, thus, offered solution and hope to most couples or individuals with infertility problem.

In the simple form, In-vitro (in glass) fertilization is “a process of mixing sperm and egg to meet and form an embryo and then to grow that embryo by doubling (mitosis) a few times in a few days” (Pennsylvanians for Human Life Education Services, Retrieved online). It is a process of making fertilization to take place in a laboratory dish or tube which is not natural. This medical scientific advancement has the intension of reducing, if not eradicating, cases of infertility. However, there exist many arguments on whether it should be justified or condemned. Hence, this paper discussed the social or religious ground on which the medical practice of in-vitro fertilization can be accepted or condemned.

The methodology adopted is historical and evaluative method of research in a social-religious and scientific approach, drawn upon primary and secondary sources of information contained in existing publications. The work presents a brief history and science of In-vitro Fertilization, highlighted the arguments for IVF, discussed the arguments against IVF From Social and Religious points of view, and evaluated the technology and technique of IVF. It then drew a conclusion and made some recommendations.

2. Brief History and Science of in-vitro fertilization

Prior to 1978, women without functioning fallopian tubes were largely considered to be sterile by their physicians. But in the late 1970’s Lesley Brown, a patient with nine years of primary infertility secondary to tubal occlusion, sought the assistance of Patrick Steptoe and Robert Edwards at the Oldham General Hospital in England. At that time, fertilization of oocytes outside the human body, a process known as In-Vitro fertilization (IVF), was considered entirely experimental and when attempted had only resulted in miscarriages and an unsuccessful pregnancy in the fallopian tube. Without using medications to her ovaries, Lesley Brown underwent laparoscopic egg retrieval, with her single egg fertilized in the laboratory, and later transferred back into the uterus. The embryo transfer resulted in the first live birth from IVF, a daughter Louise Brown, who was born in July 1978 (Onyenuga, 2009).

Coincidentally, in the same 1978, it was reported that SubashMukhopadyay, a relatively unknown physician from Kolkata, India, was

performing experiments on his own with primitive instruments and a household refrigerator. The experiment result in a test tube baby, later named “KanupriyaAgarwa” who was born on 3rd October, 1978. Steptoe and Edwards were responsible for the world’s first confirmed boy conceived by IVF, Alastair Mac Donald born 14th January 1979 in Glasegow (Wang & Sauer, 2006).

The ability to freeze and subsequently thaw and transfer embryos has significantly improved the feasibility of IVF use. The other very significant milestone in IVF was the development of the intercytoplasmic sperm injection (ICSI) of single sperms by Gianpiero. D. Palermo et al. Brussels (UZ_ Brussel), 1992. This has enabled men with low sperm count to achieve pregnancies. ICSI is sometimes used in conjunction with sperm recovery, using a testicular fine needle or open testicular biopsy. Using this method, some men with Klinefelter’s syndrome, and so would be otherwise infertile, have occasionally been able to achieve pregnancy. Thus, IVF has become the final for most fertility problems, moving from tubal disease to male factor, idiopathic sub fertility, endometriosis, advanced maternal age, and an ovulation not responding to ovulation induction.

More than 2 million IVF children have been born to date, and it is likely that continued enhancements will widen its appeal and applicability (Wang & Sauer, 2006).

The practice of IVF is a scientific and systematic work and implication requires a logically related and systematic method and procedures in order to get a desired result. The basic procedure therefore includes Control Ovarian Hyperstimulation (COH). Egg Retrieval, Fertilization and Embryo Transfer.

In-vitro fertilization (IVF) is a complex procedure used to treat fertility or genetic problems and assist with the conception of a child. To be more direct, it is a specialized technique by which an ovum, especially a human one, is fertilized by sperm outside the body. With the resulting embryo later implanted in the uterus for gestation. Olukayode F.O opines that “IVF means that fertilization process that eventually results in the embryo and takes place in a glass or a test tube” (Onyenuga, 2009). This is seen as the most effective form of assisted reproductive technology.

The medical history of the couple is taken before undergoing in-vitro fertilization. Some physical and laboratory examination and cervical culturing of the female, etc. once these tests are completed, the process in in-vitro fertilization will commence, beginning with a course of hormone treatments given to the woman to cause her ovaries to produce multiple eggs because a single fertilized egg has slim chance of survival.

After the above comes the next stage: The eggs are surgically removed just prior to ovulation. They are then placed in a culture dish with the father’s sperm. In the next few days, the dish is periodically examined to see if fertilization has occurred. Within approximately 48 hours, when the embryos reach the eight-cell age, those that appear healthy and are growing normally are

transferred into the uterus-where it is hoped that some will implant and develop full term (Opoku&Andai-Mensah, 2013). It may involve eggs, sperm or embryos from a known or anonymous donor.

Chances of having a healthy baby using IVF depend on many factors, such as age and the cause of infertility. IVF can be time-consuming, expensive and invasive. It is contrary to the natural process. It can result to multiple pregnancies. It is indeed a scientific and systematic work that has helped previously infertile couples or persons to have children they could call their own. However, its procedures have raised many arguments and objects among sociologist and various religions.

Many factors contribute to people's yearn for IVF. These factors can be summarized into two factors: medical factor and self-interest factors.

Medical factors:

Couple may seek for IVF in a situation where one is or both individuals are infertile. In addition, there may be a genetic risk in a couple's decision to procreate. This risk may come from one or both individuals being carries of a specific disease-related gene (Shannon &Kockler, 90).

Self-Interest Factors:

In this case people go for IVF not that they are medically incapable of natural process of reproduction but because they have chosen it as their own choice of procreation process. In this group are scientist who go for IVF for the sake of research and discoveries. More so the gay parents chose IVF to fulfill their traditional family completeness of husband, wife and children (though compensation seeking gamete donors and surrogate mothers). The gay person/couple is not medically sick but just chose IVF as a choice. Others include those who seek IVF to be compensated for donating their gametes or their womb (Shannon &Kockler, 90).

3. Arguments For In-Vitro Fertilization

Since inception, IVF has been a subject of moral, social and faith controversy. Some arguments in favour of IVF are here highlighted.

3.1 Helping Infertile Couples:

This is the chief of all the arguments in favour of IVF, that is potential of allowing known infertile couples to have children of their own after all. In connection to this, Shannon notes that "the most significant benefit of IVF is the potential to have genetically related children"(Shannon &Kockler, 94). Prior to IVF, as Dr. Howard Jonas avers, "it was often necessary to sit with a patient and say that we had come to the end of the line. But IVF therefore seemed like a possibility of one more step that would make less frequent this distressing conversation with a patients" (Howard, 2003). "its objective is to

reduce if not to totally cease the problem of infertility and childlessness” (Opoku&Addai-Mensah, 2014). IVF is of importance because it has and continues to help in solving the problem of infertility by allowing preciously infertile couples to finally have children of their own.

3.2 Preventing Birth Defects:

Scholars who propound this view hold that by studying fertilization and early embryonic development outside the womb, scientists may learn more about how to prevent certain birth defects. They took note of the possibility that knowledge gleaned from IVF would advance medicine in general and prenatal care in particular.

3.3 Restoration of Traditional Family Bond:

Lee Silver (2007), a biologist, has this to say: “here’s a technology which is almost always used to allow a married man and woman to have a child, to form a familyso IVF facilitates a very, very traditional outcome, which is a mother and a father and children”. It is better experienced than imagined the joy and bond of oneness that greet couples that have had children through the scientific process or procedure of IVF. IVF thus restores the traditional family bond.

4. Arguments Against In-Vitro Fertilization

4.1 Some Social Arguments

There are many social arguments that tend to undermine this medical technology called IVF. We will take on a few for want of space and time.

i. Destroying Social Structures

Many critics have warned that IVF would lead to the end of the nuclear family, with marriage placed by laboratory breeding such as occurred in Aldous Huxley’s futurist novel *Brave New World*. There exists fear of the creation of all sorts of non-traditional families while some feminists worried that with new technology enabling women to have children, the pressure to do so would increase. Some others perceive that test tube or glass babies would be socially ostracized.

IVF creates opportunity for a single woman, or even a lesbian couple to have children. These children may have no legal father. According to Blyth and Cameron (1998), “the creation of these new types of family raises important questions about the psychological consequences for the children who result”. Sociological studies have shown that several aspects of parenting influence the development of children: sensitive responding, emotional availability and a combination of warmth and control are associated with positive outcomes, whereas marital conflict and parental psychiatric disorder have a negative effects” (Fasouliotis&Schenker, 1999). Taking this into account, society is now

facing the dilemma of the 'ideal structure' of families resulting after assisted reproduction, since social groups considered in the past as not appropriate for parenting have been re-evaluated and their rights have been reconsidered (Fasouliotis&Schenker, 1999). This implies destruction of social structures.

ii. More Risk of Birth Defects:

Australia and US studies show that children conceived through IVF have about twice the risk of having a major birth defect or low birth weight than children conceived naturally. This increased risk was the same whether the children were from single or multiple pregnancies, the review of all births in Western Australia showed. The use of Assisted Reproductive Technology (ART) also increased the chance of multiple major defects, chromosomal and musculoskeletal defects.

iii. Undermining Human Social Dignity:

Some ethicists object to IVF on the ground that it undermines the dignity of human beings and human reproduction because it promotes the commodification of human biological material (Shannon &Kockler, 95). Against this view, moralists warn that compensation for gamete means that egg or sperm donation is not really a donation but rather a commercial transaction. This act reduces the meaning of reproduction and strips it of its personal dimension. Hence, IVF leads to objectifying both reproduction and children.

It is important to emphasize that negative attitudes may exist towards reproductive technologies, with procedures such as IVF and DI sometimes considered immoral or unnatural. As a result, families with a child conceived by assisted reproduction may experience overt prejudice not only from the wider community but also from relative and friends.

Against the above background, it is necessary to highlight an incident that happened in Elele-Alimini, Emohua Local Government Area of Rivers State, Nigeria. A well placed couple with the problem of infertility that lasted for some couples of years sort solution through IVF. Two (2) years ago, news spread all over the town of the arrival of a triplet in the family. There was celebration and joy. Not long, rumour started emerging that the children were born through artificial means. The dignity and legitimacy of the children were questioned by members of the community. Elders insisted that their culture forbade such form of reproduction or procreation thus the children are not members of the community. This raised much dust as the children were referred to as "it" by many people which means they were not human beings but a mere laboratory production. Though the issue was later resolved and the family accepted, but damaged had been done on human dignity. Mockery, discrimination and abuse greet them daily.

When human beings are seen as ordinary laboratory products, it implies loss of human social dignity.

4.2 Some Religions' Arguments

There are many religions in the world. Each of them has its view about IVF. However, this work concentrates on two (2) of the major religions which are Christianity and Islam. Opoku and Addai-Mensah (2014) believe that the main theological and doctrinal view discussed in respect of IVF are from these two religions. "The idea of procreation from their perspective is so much in-line with each other due to their conception of a common creator of the universe (God)".

Christianity and Islam lay emphasis on natural process of procreation of which any other contrary process is highly debated. "One of the Central pillars of orthodox religions is the doctrine that God created the world and he is the beginner of all lives. This position re-introduces the effervescent relationship between theology and the beginning of life" (Opoku&Addai-Mensah, 2014). This discussion of IVF in the light of the mentioned religions re-opens the long existed debate on the relationship between science and religion.

4.2 :i Christian Perspective

When God complete the creation work, he instructed human begins (Adam and Eve) to be "fruitful and multiply" (Genesis 1: 28. KJV). We cannot overemphasize the place and degree of desire of Christian couples to have children. If God had not put the biological urge for reproduction in place during creation, His created species would have all died out. "As pressure mounts to have children (from society, family and even church members), frustrations escalate within couples and their marriage. However, "a quick-fix to this problem has for the years past being centered on Assisted Reproduction Technology (ART)" (Opoku&Addia-Mesah, 2014). According to Goldworth (1999), over many centuries since God's injunction, children have been born by natural means. However among the estimated millions of fertile couples around the world, IVF offers new promise to them.

For many Christians, IVF is an intrusion in the divine process of reproduction. It is also an intrusion into the bonds of marriage and parenthood. It further expresses an intrusion into the sanctity of life in relation to the status of the embryo, etc. it is true that we cannot deny the fact that IVF seems to be a good solution to the problem of infertility yet a deeper look at its route can lead to more heart ache than not having children.

Many ethical issues confront IVF procedures. Many moralist including Dignitas advanced issues regarding bioethical questions, including assisted reproduction, insist that assisted reproduction must respect 3 basic principles: couples must be married, conception must occur through normal intercourse and finally, the embryo must be treated with the full respect due to all human life from the moment of conception. This issue however cannot be understood apart from the foundational issues of human dignity, the meaning of personhood, and the integrity of marriage and family (Dignitas Personae, online).

In the first place, human dignity is compromised by the artificiality of the IVF technology. The absolute separation of conjugal union (the sex act) from the process of conception creates a new and artificial process of human reproduction—one that demands technological intervention at virtually every stage, from the collection of the sperm and eggs, to the actual fertilization, to the implantation of the embryo in the uterus. This puts human agents in control of human destiny in a manner that overthrows natural limits upon our creaturely power and authority. Humans seem intent upon exceeding those limits in every sphere, and the rapid developments in biotechnology threaten to transform the understanding of what it means to be human. The Dignity of Parenthood is of the view that human identity has been inherently related to parenthood and the conjugal bond. What does it mean to think of humanity severed from this parental relatedness?

The new technologies of IVF underline the extent to which the modern mind has reduced human reproduction to a technology rather than a divine gift, mystery, and stewardship. As Oliver O'Donovan in Alastair argues, the biblical language reminds us that we are begotten, not merely made. This is not a semantic irrelevancy. Our language betrays our understanding of the meaning of human procreation. Children are not the products of a technological process, like common consumer commodities, but are the gifts of a living God whose intention is that children should be born to a man and a woman united in the bond of marriage, and as the fruit of that marital bond realized in the conjugal act. They are neither by-products of the sex act nor mere “products” of our technological innovations (Alastair, et al, 2014).

Paul Ramsey in Wilson warned that we would be “de-biologizing” the human race by the use of these technologies. While we sympathize with couples unable to achieve conception by means within natural limits, these limits remain. We ought rather to live with charity amid the limits of a biological and historical existence which God created for the good and simple reason that, for all its corruption, it is now and for the temporal future will be—the good realm in which man and his welfare are to be found and served (Wilson, 2014). Ramsey's warning against the “messianic positivism” of these new technologies is a corrective to those who believe that this is merely a Catholic concern. Protestants, too, have historically recognized the intrinsic relatedness of parenthood to the conjugal bond and the act of marital sex as the design of a loving and merciful Creator, who imposed limits for our good. IVF technologies threaten those limits in other ways as well.

IVF compromise the marital bond and threaten the integrity of the family. The use of donor sperm is unacceptable, for it brings a third party into the marital bond. The same is true for the use of a donor egg. A married couple should not invite the biological contribution of a third party—known or unknown. While the fertilization of the egg occurs in a laboratory (thus avoiding

adultery), the marital bond is compromised by the use of another man's sperm or another woman's egg.

The argument is that the use of IVF to allow unmarried women and lesbian couples to achieve pregnancy outside marriage and heterosexual relatedness is a direct rejection of God's intention in the creation of humanity as male and female, and the limitation of sexual relatedness and procreation to a man and a woman united within the marital covenant.

The Christian view opposes IVF also on the ground of disposal of embryos. Christians believe that an embryo is a person with a soul who must be treated as such. "it must be allowed to reside in its original and natural position and with time will reach a stage appropriate to be called a human being. Most of the embryos conceived which the church holds to be human life die, are frozen indefinitely for later implantation, are used for research or are discarded" (Opoku&Addai-Mesah, 2014). IVF makes the child a commodity produced in a laboratory and makes doctors, technicians and even business people part of the conception process. Also, the sperm used is usually by masturbation, which the church teaches to be immoral. In some cases the sperm or egg used may not come from the couple desiring the child; because one of the spouses may be infertile, it may be necessary to use the sperm or egg of an outsider. Nonetheless, Christianity posits that, it is not objectively evil to be infertile and advocates adoption as an option for such couple who still wish to have children. Destruction of embryos is equal to murdering children.

4.2 :ii. Islamic Perspective

Islam recognizes the inherent desire of married couples to have their own children. The inability to have children is one of the serious hardships that a married couple endures since the essence of mankind having spouses and bringing forth children is a very strong human instinct and Allah reminds His people of this in the Holy Quran (Surah 42:49-50) makes it clear that infertility is ordained by Allah and will happen to certain couples the same as the other hardship/disasters which afflict humankind now and then. This does not mean that Islam asks the infertile couple only to pray to overcome this problem. Islam encourages reproduction and it advocates treatment of infertility as well. A basic Islamic principle permits persons facing hardship to use all "lawful" means to solve their problem, while at the same time preserving their trust in God that He will help them achieve their goal. The hadith narrated on the authority of Usamah bin Shuraik briefly put it as follows," the Prophet (PBUH) said, "seek remedy (of your illnesses), for Allah has never created an illness unless He has also created a cure for it, save the (illness of) old age." (Opoku&Addai-Mesah, 2014).

It is worthy to note that there are two major views or perspectives in relation to IVF within Islam: The Sunni and the Shi'ite. Sunni Islamist hold that IVF can be employed by couples if the egg and sperm that is going to be used for fertilization are derived from the husband and wife and the fertilized egg is

transferred back to the uterus of the wife. There must be a medical reason to this and it must be done by an expert. No third party should be involved in the process less it will amount to zina (adultery). Frozen embryos are a property of the couple alone and must not be transferred to any other person or used for another purpose. This is the view of the majority.

The Shi'ite supported the majority Sunni view that third-party donation should be strictly abhorred. Later, the Shi'ite accepted a third party (donor) which is a deviance from the majority Sunni view. Thus, the use of IVF in the Suni Muslim world, has clearly led to an entrenchment of deeply held religious beliefs about the importance of biologically based kinship, family life, and parenthood. Yet the globalization of this technology to other parts of the world has primarily distorted understandings of the ways in which families can be made and the ways in which marriage can be saved through the uses of new reproductive technologies (Opoku&Addai-Mensah, 2014).

5. Evaluation & Conclusion

5:1 Evaluation

It is necessary to have the following questions in mind at this crucial point of this presentation:

- Does IVF really undermine the dignity of the human person?
- The technology of IVF – does it work against nature and divinely ordained process in a very different way from other medical scientific technologies?
- Is there any social, ethical or religious ground on which to condemn or support IVF?

From the foregoing, we saw that those who condemn IVF do so from the standpoint of ethics and not because they are not appreciative of the scientific development or because they are ignorant of its potential benefit of allowing infertile couples to have genetically related children. The wide rejection and condemnation of IVF is centered on its potential tendencies of undermining the dignity of human person and of being against nature (divine arrangement). The means (laboratory control) which is basically artificial and the method which involves cryostorage and embryo destruction contribute to their fears that if IVF should be embraced in view of the potential benefit, it will devalue the dignity of the human person; distort divine natural system and breakdown social structures.

On the contrary, Joseph Fletcher in his situation ethics believes that laboratory control is as human as conception by sexual intercourse. Laboratory reproduction is willed, chosen, purposed and controlled, all qualities that distinguish humans from other creatures (Asogwa, 2014). One could reason with Fletcher here because human value is not on the procreation process as to say but on the quality of what is inside. And it is scientifically held that when reproduction is controlled in the laboratory, there will be room for improving on

the intelligence, morphology, height, beauty and complexion of the intra-uterine life. This will go a long way to check any genetically related embryonic disease as well as other brain related infections such as imbecility, morphological deformity, obesity etc, which for me are what maim the dignity of human person instead. Laboratory control of reproduction does not actually dehumanize man but brings about a positive result after all.

Many cultures and religions assume that reproduction is done only through a divinely ordained and established natural means thus IVF or any other form of Assisted Reproductive Technology (ART) is anathema. If IVF is anathema because of the assumption that it is against nature or divinely ordained process, what do we say of Caesarean Section (CS), infusion, transfusion, life support machines, etc? Are they divinely ordained processes or natural processes? It is, therefore, obvious that if we tie ourselves to the grounds on which cultures (societies) and religions condemn IVF which, Cauthen calls "hard-line moral absolutism", medical sciences will disappear into oblivion. This is because almost every process in medicine, in the ordinary sense, is against nature and divinely ordained process. If other aspects and practices of medical science are not anathema, IVF should not be assumed to be anathema.

Shad (2013) avers, children are gift to couples by God and couples are not entitled to them. That is, a child should be seen as a gift from God, not a right (although the child has rights). Some, God has blessed with many such gifts, and from some God has chosen to withhold that blessing. According to most Christians, as devastating as the problem of infertility can be, these couples can, by God's grace, acknowledge His will in all things. Some scholars in Islam are also of the view that children are not a necessity so one can stay alive without children. Unlike water and food that are necessary for living and that one may even take unlawful food if lawful food is not available, this does not apply to making babies/ children.

If we are to agree with the above, we should also agree that life and health are gifts from God and human beings are not entitled to them. Some, God has blessed with long life and good health, and from some, God has chosen to withhold that blessing. So, as devastating as diseases, sicknesses etc can be on a Christian or Muslim, he can by God's grace, acknowledge His will in all things thus should not seek any medical help or assistance. If these categories of persons must seek medical assistance then, there is nothing wrong in an infertile couple seeking medical assistance. They exist in the same realm and confronted with the same category of problems – health challenges.

The belief of the two major religions that God has ordained heterosexual marriage and any attempt to have children must take place within this relationship may be acceptable. IVF should only be done within the confinements of marriage, that is, heterosexual marriage. This means that a couple reserve right of decision or choice of whether or not to go for IVF and how to go about it (whether or not to involve a third party). IVF will be

anathema if done outside heterosexual marriage, that is, if Lesbian and Gay couples are allowed to have children through IVF. This would mean that the society is in support of such abomination. Such practice of allowing Lesbians and Gays to have children through the provision of IVF is a reason why IVF cannot be entirely applauded.

It is necessary to clarify here that the involvement of a third party (donor) does not amount to adultery. Adultery does not refer to the act of conception but the act of sexual intercourse with someone who is not your spouse. This is fornication in the case of those who are not yet married. Adultery can take place without conception occurring and conception can take place without involving in adultery. This issue of third party (donor or surrogate mothers) should be considered alongside the idea of adoption. If adoption is justifiable, then, involvement of third party in IVF could be justifiable. It could be seen as a new form of adoption that encourages closer intimacy and relationship, such that the child can have a biological tie with the both parents or either of them.

What should engage our minds is the process of collecting the sperm. If it involves masturbation, it will amount to immorality but if there is a medical means of doing it without masturbating or being caressed by someone who is not your spouse, then there should be no tension.

The destruction of embryos which is a common practice in IVF is another reason why IVF cannot be entirely applauded. Both Christians and Islam see destruction of an embryo as abortion (murder). Abortion is generally deemed illegal in Islamic law except on one condition, which is, when pregnancy threatens the health of the mother. Christians, however, refute the act of destroying embryos because human life is precious from the point of conception.

In connection with the above, the technology of IVF should be developed to a point that destruction of embryos will be completely avoided and embryos should not be used for research except for the reason of improving on the wellbeing of the embryo. The scientist should be saddled with the responsibility of reasoning on how to carry out IVF in such a way that the couple will get the number of foetus they needed and yet there would be no left over embryo. If this is achieved with the idea of restricting it only to heterosexual married couples, IVF would become void of social, moral and religious loopholes.

5.2 Conclusion and Recommendation

In-Vitro Fertilization should be considered within the general context of reproductive health care while debating about it. It is a brave new world of possibilities of giving birth. However, in providing this new technology, one must respect the dignity of human beings. The technology itself is right but some aspects of its application like discarding of embryos and allowing lesbian and gay couples accesses to having children through IVF seem to question the

dignity of the human person and should be corrected. If the identified facts that undermine IVF are corrected, it is socially, morally and religiously right and should be accepted thus the following recommendations:

- It should be clearly stated that, the decision to use IVF should be left to the individual couples.
- IVF should be seen as any other form of medical services and not treated with prejudice.
- IVF practice should be limited to only infertile couples who have been medically certified for it.
- Modern scientific advances have so much to offer, but unbiased ethical and religious principles should guide their practice and applications.
- There should be respect for divine principles, social structures and ethical codes, yet care must be taken to avoid lopsided tenets.
- Scientist should reason out how to do IVF in a way that the couple involved will get the number of foetus they need without a left over embryo.
- Embryos should be used for research only for the purpose of improving on their wellbeing.

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