

IVF as a means of securing the sacredness of the marriage institution: An African theologian perspective

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Abstract

In vitro fertilization (IVF) being a type of Assisted Reproductive Technology has faced many critics from many religions including Christianity. Many Christian denominations have been antagonistic toward the process based on the different perceived ethical issues surrounding the practice. However, the fact that the process also has some advantages cannot be denied. In Africa, childbearing is considered one of the most important events in a family and thus when a family is without a child, there are undeniable issues of divorce, cajoling from friends, domestic violence, and many others even in Christian homes. This tends to disrupt the sacredness of the marriage institution as opined by the Bible. Based on this, this paper, therefore, studies the practice of IVF as a way of reducing the issues that tend to mar the intention of the marriage institution as the Bible proposes. The descriptive research design was used to describe the inherent issues and the role of IVF in curbing the issue. The paper, therefore, concludes that despite having different ethical issues, IVF can go a long way in the reduction of marital issues in Africa as most of these issues are reproduction related. It can reduce extended family rancor due to the inability to bear children, divorce, and separation that are related to childlessness.

Keywords: In vitro fertilization (IVF), Marriage, Africa

Introduction

Assisted Reproductive Technology (ART) is an established technique for treating some forms of infertility, though it remains controversial due to its associated undesirable effect on the mother as well as on the child.¹ However, weighing the risk and benefits, it has been proved that the benefit has brought a lot of happiness to families around the world. ART exists in different types

¹Patrick J. Rowe et al., WHO Manual for the Standardized Investigation, Diagnosis and Management of the Infertile Male (UK: Cambridge University Press, 2000), 1



which include In vitro fertilization (IVF), Intrafallopian transfer, Frozen embryo transfer, Intracytoplasmic sperm injection, and Third-party ART.² Among these different types, IVF is seen as the most effective form. The procedure can be done using a couple's eggs and sperm or it may involve eggs, sperm, or embryos from a known or anonymous donor. Also, in some cases, someone who has an embryo implanted in the uterus (a gestational carrier) might be used.³

Numerous couples who are suffering from the agony of infertility have been given hope by in vitro fertilization (IVF). The ethical concerns of this treatment must be considered, just as they are with any new medical technology, especially in light of recent occurrences like the birth of the first genetically modified human beings, made possible via IVF.⁴ Ethical and moral issues have always arisen when investigators study early mammalian development, particularly human development.⁵ Christianity is one of the Religions that have played an important role in the ethical dilemmas surrounding Assisted reproductive technologies. According to the Catholic Church, IVF is an unnatural method of conception and should not be accepted. This stance has been the official Roman Catholic position on assisted reproductive technologies. In 2007, Pope Benedict XVI declared that IVF and other forms of assisted reproduction are unworthy methods of conception, they believe IVF is an unworthy method of creating a new life because it replaces God, who is the sole creator of life.⁶ Like other Catholic documents (most notably the *Donum Vitae*), this declaration condemns IVF because it separates reproduction from sexual intercourse between the husband and wife, bringing a deeply personal act into the cold environment of the laboratory. Kevin Kelly, a devout Catholic in 1987, however, opposed the Catholic position because he saw the greater significance in the integrity of human relations as love, marriage, and parenthood, in which, these could not be defined by the single physical act of intercourse.⁷ An additional reason for the resistance against IVF is that some embryos (beginnings of new life) are discarded⁸ IVF, Gamete donation, Embryo donation, and Surrogacy through IVF are not acceptable by Catholics.

Eastern Orthodox Churches' position on IVF seems to be less restrictive than that of the Catholic Church. Under some circumstances, the Eastern Orthodox

²Rowe et al., WHO Manual.

³Francesco Paolo Busardo et al., "The evolution of legislation in the field of Medically Assisted Reproduction and Embryo Stem Cell Research in European Union members," *Biomed Res Int.* (2014): 307160.

⁴Breanna Beers, "The Ethics of IVF," *Bioethics in Faith and Practice* 4, no. 1 (2019): 8. DOI: 10.15385/jbfp.2019.4.1.3

⁵John D Biggers, *Reproductive Healthcare IVF and Embryo Transfer: Historical Origin and Development* Ltd (Elsevier Ltd, 2012). <http://dx.doi.org/10.1016/j.rbmo>.

⁶David Gareth Jones, "Christian Responses to Challenging Developments in Biomedical Science: The Case of In Vitro Fertilisation (IVF)," *Science and Christian Belief* 26, no 2 (2014): 143-164.

⁷Janet Dickey McDowell, "Ethical Implications of In Vitro Fertilization," *Moral Medicine: Theological Perspectives in Medical Ethics* 2 (1998): 505-508.

⁸Congregation for the Doctrine of the Faith, "Instruction on respect for human life in its origin and on the dignity of procreation," accessed June 10, 2022 http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-humanlife_en.htm accessed on 10/6/2022

Church allows the use of parents' gametes for IVF, fertilizing only as many embryos as will be implanted, thus avoiding scenarios under which embryos are discarded. Among the Protestant Churches, there is no common statement on IVF. In most Protestant countries, IVF as such is no longer disputed, but some of the other methods are questioned. Despite the issues related to the acceptance of this method of reproduction, it cannot be discarded that it has its advantages. Therefore, the paper diverts its attention from the ethical issues inherent in this practice and focuses on its role and importance in solving birth-related marriage crises in Africa.⁹

Biblical perspective on the sacredness of marriage

Marriage, also called matrimony or wedlock is a culturally and often legally recognized union between people called spouses. It establishes rights and obligations between them, as well as between them and their children, and between them and their in-laws.¹⁰ Scholars have diverse views on the history of marriage. Friday expressed that it is widely agreed that the origin of marriage dates well before recorded history, but the earliest recorded evidence of marriage ceremonies uniting one woman and one-man dates from about 2350 B.C. in the Far East. Over the next several hundred years, marriage evolved into a widespread institution embraced by various cultures.¹¹ However, Christians believe that marriage is an institution that is instituted by God Himself. The biblical account of marriage begins in Genesis 1:27, with the creation of man in two sexes by God in his image, and in Genesis 2:24, the Bible explains that for this reason a man shall leave his father and his mother, and be joined to his wife and they shall become one flesh." Theroux accounts that Jesus later called humanity back to these truths (Matt. 19:4-6; Mark 10:6-8), and the Christian story of the world is viewed as culminating in the wedding of Christ and his bride, the Church. All Christian discussions of marriage stem from this "great mystery," as Paul called it (Eph. 5:32).¹² Brooks added that God ordained it, and He had a plan for it. As Christians ought to know, marriage is a solemn covenant, and marriage vows are forever.¹³

Thus, the nature of marriage from the biblical perspective presents marriage to be the joining together of a man and a woman through which they would become one flesh. However, this sacred activity which was instituted by God in Genesis 2:24 has a pattern or nature. Köstenberger suggests that Genesis 2:24

⁹H. N.Sallam and N. H.Sallam, "Religious aspects of assisted reproduction," *Facts Views Vis Obgyn*.8 (2016):33-48

¹⁰ William A.Haviland et al., *Cultural Anthropology: The Human Challenge*, 13th ed. (Belmont, CA: Wadsworth, Cengage Learning, 2011), 27.

¹¹ Sharon Priday, "History of Marriage," accessed June 21, 2022, <https://www.incegd.com/en/news-insights/family-matrimonial-history-marriage#:~:text=It%20is%20widely%20agreed%20that,B.C.%20in%20the%20Far%20East.&text=The%20Church%20prevailed%2C%20with%20monogamy,marriage%20by%20the%20ninth%20century.>

¹² David J Theroux, "The Historical and Christian Roots of Marriage," accessed June 26, 2022, <https://theimaginativeconservative.org/2016/04/the-historical-and-christian-roots-of-marriage.html>

¹³ Michele Brewer Brooks, "The Biblical View of Marriage: Covenant Relationship," *Regent University Law Review* 12, no. 125 (199): 125-144.

indicates the following characteristics; Monogamy (a man and a woman), Durability and Fidelity (holdfast), Complementarity, fertility, and heterosexuality (becoming one flesh).¹⁴ Concomitantly, Stewart asserts that the most used verb that denominates the act of marriage is the Hebrew *laqah* which means "to take". With this, one man and one woman together formed a whole human being in which the man was dominant, because he was the ruler, and the woman was dependent because she was created out of something taken from man. In this unity of relationship, there was love, companionship, and mutual help which led eventually to the founding of the family.¹⁵ The union of man and woman for life was protected by clear laws in the Israelite society.¹⁶

Although God ordained the very first union even before there was any trace of sin or sadness and blessed marriage with the plan of a committed, lifelong partnership, man disobeyed the instructions of God and this caused the perfect plan of God for man to be uttered. More so, Marriage was also affected in the cause of the fall of man from the original plan of God, Wheat expressed God's original intentions on marriage before the fall of man, he discussed that marriage was designed by God to meet the first need of the human race: loneliness. Adam had the fellowship of God and the company of birds and animals, an interesting job, but he was alone. Thus, a wise and loving Creator provided the perfect solution: another creature like the man yet wondrously unlike him. God planned to supply completeness, a person suitable for Adam spiritually, intellectually, emotionally, and physically.¹⁷ He further explained that marriage was planned and decreed to bring happiness, not misery which is seen in man's expression when the Lord brought the woman to him: "This is now bone of my bones and flesh of my flesh; she shall be called 'woman,' for she was taken out of man" (Gen. 2:23). Thus, without a doubt marriage was designed for our joy and our happiness.¹⁸

In the Gospel, Christ taught about marriage as well as attending the program itself. In both Matthew and Mark, Jesus appealed to God's will in creation. He builds upon the narratives in which male and female are created together and for one another Jesus brought together two passages from Genesis, reinforcing the basic position on marriage found in Jewish scripture. Thus, he implicitly emphasized that it is God-made.¹⁹ Stagg Further explained that Christ never supported divorce because in marriage husband and wife are made "one flesh", and what God has united man must not separate.²⁰ In Affirmation to Christ's view on marriage, Apostle Paul emphasized the mutual and sacrificial concept of marriage by expressing that marriage brings a man and a woman together as one body therefore a woman should deny herself likewise the man to himself to

¹⁴ Andreas J. Köstenberger and David W. Jones, *God, Marriage and Family: Rebuilding the Biblical Foundation*, Second Ed. (Wheaton, IL: Crossway Books, 2004), 31.

¹⁵ A. Stewart, "Customs on betrothal and marriage in the Old Testament," accessed June 2, 2022, https://biblicalstudies.org.uk/pdf/cbrfj/27_27.pdf

¹⁶ Stewart, "Customs."

¹⁷ Ed. Wheat, *Love Life for Every Married Couple*, (Grand Rapids: Zondervan Publishing House, 1980), 177-193.

¹⁸ Wheat, *Love*.

¹⁹ Frank Stagg, *New Testament Theology* (Bodman Press 1964).

²⁰ Stagg, *New Testament Theology*.

support and cleave to each other.²¹ Just like the OT, the NT is also clamoring for marital uprightness. The OT teachings on marriage are a bedrock of the principles in the NT. This is because marriage emanated from the Old Testament and its principles run through the whole scriptures. Therefore, there is the need to uphold morality, integrity, and uprightness in marital processes even marriage itself.

In essence, the biblical perspective of marriage has been one of a sacred order. Despite the challenges being faced due to sin, God still seeks and wishes that man can guard the sacredness of the marriage institution. It can be noted that among the marriage challenges that the fall has brought is the challenge of divorce which goes against the biblical marriage injunction of cleaving one to another.

Brief history of in vitro fertilization (IVF)

Human reproduction research has always been fraught with both scientific and ethical challenges that initially hindered the development of treatments for infertility. However, in the 1960s and 1970s, our understanding of the events in human oocyte fertilization grew to the point that in vitro fertilization (IVF) of human oocytes became possible. Ultimately, this knowledge led to the widely acclaimed first live birth of a “test tube baby,” Louise Brown, in England in 1978.²² In this sentinel IVF birth, the mother had a natural menstrual cycle, physicians laparoscopically retrieved a single pre-ovulatory oocyte from her ovary, fertilized it in vitro, and then transferred the resulting eight-cell embryo into her uterus. Three years later, the first IVF baby in the U.S. and the 15th worldwide, was born. In this case, rather than rely on the one oocyte that would be produced naturally, the mother was injected for several days with human menopausal gonadotropin to induce several follicles in the ovary to produce oocytes. In 1985, the first IVF baby in Missouri was born to a couple who underwent IVF at Washington University and delivered at what is now Barnes-Jewish Hospital.²³

Since that time, it can be said that the practice of IVF has continued to evolve at an astounding pace. Today, IVF accounts for millions of births worldwide and 1–3% of all births every year in the U.S. and Europe.²⁴ The increasing demand for fertility treatment drives research and development of technologies to optimize IVF regimens and success. However, in Nigeria, Ashiru and Abisogun started the research in 1983 and this led to the successful in-vitro fertilization

²¹Schudt, Susan. “Paul on Marriage. A short analysis on the changing theology of St. Paul regarding marriage.” (2019), accessed on 26 June, 2022, :
https://www.researchgate.net/publication/335728481_Paul_on_Marriage

²²Patrick C. Steptoe and Robert G. Edwards, “Birth after reimplantation of a human embryo,” *The Lancet*. 312(1978):366.

²³United Press International Inc., “First test-tube babies born in Missouri,” accessed July 20, 2022, <http://www.upi.com/Archives/1985/01/25/First-test-tube-babies-born-in-Missouri/8289475477200/>

²⁴Anjani Chandra, Casey E Copen and Elizabeth Hervey Stephen, “Infertility service use in the United States: data from the National Survey of Family Growth 1982-2010,” *National health statistics reports* 73 (2014): 1–21.

and pregnancy of rats on 17th march 1989.²⁵ Human ingenuity came into play at the Lagos State Teaching Hospital, Idiaraba, Lagos when a team of experts from the hospital, and the College of Medicine, University of Lagos, became the first researchers ever to produce the test tube baby in Black Africa, comprising East, West, and Central Africa conceived through the delicate In-Vitro Fertilization and Embryo Transfer (IVF-ET) method was born after the crowning glory of five years of painstaking research endeavours.²⁶ According to Hart and Norman, the couple had been married in 1980 and had had several unsuccessful attempts at achieving pregnancy through a normal biological process. This became possible through assisted reproductive technology in Nigeria for the pioneering work in 1984 (the first human IVF) and 1989 (the first live baby from IVF). The birth of Olushina was a medical feat that brought with it a ray of hope.²⁷

Although this procedure has brought a lot of joy to people, Niemitz and Feinberg identify possible risks associated with IVF which are miscarriage, hemorrhage, pregnancy-induced high blood pressure (pre and post-eclampsia), diabetes, anaemia, polyhydramnios (excessive amounts of amniotic fluid that surrounds the foetus), increases blood clot and ectopic pregnancy (high chances of ectopic pregnancy is common in IVF).²⁸

Securing the sacredness of marriage through IVF: An African thought

Despite the different religious views on the practice of IVF of which most are against its practice, it can be noted that the sole aim of IVF is for reproduction and the reproduction/birth issue has been one of the key issues faced in marriages in Africa. Marriage is holy and sacred and needs to be kept that way as long as the principle used does not violate God's principles.

God gave an injunction to man to be fruitful and multiply and this injunction has been held firmly in African communities. Dyer elucidates that the unfavorable effects of involuntary childlessness are a reflection of how much parents and the community value children. He claims that children in Africa serve a variety of purposes, including securing conjugal relationships, providing social security, helping with labor, conferring social prestige, securing property and inheritance rights, preserving family ancestry, and satiating emotional needs. Thus in contrast to industrialized nations, parenthood is shown to be more ingrained in African communities.²⁹

²⁵OyeyemiGbenga Mustapha, "The History of IVF in Nigeria," accessed July 10, 2022, <http://ivfhistorynigeria.blogspot.com.ng/2010/12/history-of-ivf-in-nigeria.html>

²⁶Kingsley OmoteMrabure, "In Vitro Fertilization (IVF-Test Tube Baby): The Need for A Legal Frame Work in Nigeria," *Unilag Law Review* 2, no. 1 (2018): 106-117.

²⁷Roger Hart, Robert J. Norman, "The Longer-Term Health Outcomes for Children Born as a Result of IVF Treatment: Part II-Mental Health and Development Outcomes," *Human Reproduction Update* 19, no 3 (2013): 244-250. doi:10.1093/humupd/dmt002.

²⁸Emily L. Niemitz and Andrew P. Feinberg, "Epigenetics and Assisted Reproductive Technology: A Call for Investigation," *American Journal of Human Genetics*, 74, no. 4(2004): 599-609

²⁹Silke J.Dyer, "The value of children in African countries: insights from studies on infertility," *J PsychosomObstetGynaecol* 28, no. 2 (2007): 69-77. Doi: 10.1080/01674820701409959. PMID: 17538814.

In Africa, children are seen as precious gifts from the Supreme Being, according to Ohaja and Anyim. Pregnancy and delivery are therefore considered exceptional occasions and are honored through a variety of rituals. They went on to say that after a woman marries, she is typically expected to become pregnant and have children to grow her family and pass along the family line from one generation to the next.³⁰ Baloyi elucidates that African societies hold the belief that God has required or instructed individuals to marry and have children from the very beginning of human life. As a result, having children is converted into a burden that occasionally leads to wife beatings and even women's murders rather than being a source of joy for the family.³¹In essence, if a marriage did not result in offspring, divorce was also an option.

IVF, therefore, becomes an important instrument in reducing childlessness tensions in marriage and securing its sacredness. Divorce cases that are about childlessness can be curbed to a large extent as African couples can engage in IVF which subsequently will brighten such homes. More so, hatred from families and friends which can be a result of the notion that a woman does not have a womb can also be reduced. Thus, when the woman carries the baby in her womb, the perceptions of the people around her will be transformed. Childlessness can lead to depression which can result in domestic violence. Sometimes when the man has been cajoled outside by his friends regarding his childlessness, he comes home and takes out his frustration on the wife. Thus, the rate of domestic violence which is related to issues of childlessness can be reduced when couples have children to call theirs and to this effect, IVF can be of importance.

In essence, children are held in high esteem in Africa and this makes childlessness a major issue in African marriages and families. To those who are Christians, their belief in the sacredness of the marriage institution is challenged as childless in an African setting holds a high tendency of destroying marriage relationships. Thus, engaging in IVF by families who are having difficulty in childbearing can help secure the sanctity of the marriage institution by reducing the internal rancor which includes divorce, hatred by extended, depression leading to domestic violence, and many others. The marriage institution is expected to bring about companionship, peace of mind, and completeness of an individual and if these features are hampered by the inability to fulfill the injunction of multiplying, the purpose is defeated entirely.

Conclusion

IVF is one of the most widely adopted and successful medical technologies, in the last century, it has given hope and happiness to a lot of families. Even though the IVF treatment has its share of disadvantages, the treatment has had its fair portion success rate, moreover, in many cases, it is the only alternative for the

³⁰Magdalena Ohaja and Chinemerem Anyim, "Rituals and Embodied Cultural Practices at the Beginning of Life: African Perspectives," *Religions* 12 (2021): 1-12. <https://doi.org/10.3390/rel12111024>

³¹Magezi E. Baloyi, "Gendered Character of barrenness in an African context: An African Pastoral study," *In die Skriflig* 51, no. 1 (2017): 1-7. <https://doi.org/10.4102/ids.v51i1.2172>

couple, affected by infertility. Despite having different ethical issues, IVF can go a long way in the reduction of marital issues in Africa as most of these issues are reproduction related. It can reduce extended family rancor due to the inability to bear children and also divorce and separation that are related to childlessness.

BIBLIOGRAPHY

- Baloyi, Magezi E. "Gendered Character of barrenness in an African context: An African Pastoral study." *In die Skriflig* 51, no. 1 (2017): 1-7 .
<https://doi.org/10.4102/ids.v51i1.2172>
- Beers, Breanna. "The Ethics of IVF." *Bioethics in Faith and Practice* 4, no. 1 (2019): 8-26. DOI: 10.15385/jbfp.2019.4.1.3
- Biggers, John D. *Reproductive Healthcare IVF and Embryo Transfer: Historical Origin and development* Ltd. Elsevier Ltd.
<http://dx.doi.org/10.1016/j.rbmo.2012>
- Busardo, Francesco Paolo, Matteo Gulino, Simona Napoletano, Simona Zaami and Paola Frati, "The evolution of legislation in the field of Medically Assisted Reproduction and Embryo Stem Cell Research in European Union members." *Biomed Research International* (2014): 307160.
<https://doi.org/10.1155/2014/307160>
- Chandra, Anjani, Casey E Copen and Elizabeth Hervey Stephen. "Infertility service use in the United States: data from the National Survey of Family Growth 1982-2010." *National health statistics reports* 73 (2014): 1-21.
- Congregation for the Doctrine of the Faith. "Instruction on respect for human life in its origin and on the dignity of procreation." Replies to certain questions of the day. Accessed June 10, 2022. http://www.vatican.va/roman_curia/congregations/cfaith/documents/rc_con_cfaith_doc_19870222_respect-for-humanlife_en.htm
- Dyer, Silke J. "The value of children in African countries: insights from studies on infertility." *J Psychosom Obstet Gynaecol* 28, no. 2 (2007): 69-77. Doi: 10.1080/01674820701409959. PMID: 17538814.
- Hart, Roger and Robert J. Norman. "The Longer-Term Health Outcomes for Children Born as a Result of IVF Treatment: Part II-Mental Health and Development Outcomes." *Human Reproduction Update* 19, no 3 (2013): 244-250. Doi:10.1093/humupd/dmt002.
- Haviland, William A., Harald E.L. Prins, Bunny McBride, and Dana Walrath. *Cultural Anthropology: The Human Challenge*, 13th ed. Belmont, CA: Wadsworth, Cengage Learning, 2011.

- Jones, David Gareth. "Christian Responses to Challenging Developments in Biomedical Science: The Case of In Vitro Fertilisation (IVF)." *Science and Christian Belief* 26, no. 2 (2014): 143-164.
- Köstenberger, Andreas J. and David W. Jones. *God, Marriage and Family: Rebuilding the Biblical Foundation*. Second Ed. Wheaton, IL: Crossway Books, 2004.
- McDowell, Janet Dickey. "Ethical Implications of In Vitro Fertilization." *On Moral Medicine: Theological Perspectives in Medical Ethics* 2 (1998): 505-508.
- Michele Brewer Brooks. "The Biblical View of Marriage: Covenant Relationship." *Regent University Law Review* 12, no. 125 (199): 125-144.
- Mrabure, Kingsley Omote. "In Vitro Fertilization (IVF-Test Tube Baby): The Need for A Legal Frame Work in Nigeria." *Unilag Law Review* 2, no. 1 (2018): 106-117.
- Mustapha, OyeyemiGbenga. "The History of IVF in Nigeria." Accessed July 10, 2022. <http://ivfhistorynigeria.blogspot.com.ng/2010/12/history-of-ivf-in-nigeria.html>
- Niemitz, Emily L. and Andrew P. Feinberg. "Epigenetics and Assisted Reproductive Technology: A Call for Investigation." *American Journal of Human Genetics*, 74, no. 4 (2004): 599-609
- Ohaja, Magdalena and Chinemerem Anyim. "Rituals and Embodied Cultural Practices at the Beginning of Life: African Perspectives." *Religions* 12 (2021): 1-12. <https://doi.org/10.3390/rel12111024>
- Friday, Sharon. "History of Marriage." Accessed June 21, 2022. <https://www.incegd.com/en/news-insights/family-matrimonial-history-marriage#:~:text=It%20is%20widely%20agreed%20that,B.C.%20in%20the%20Far%20East.&text=The%20Church%20prevailed%2C%20with%20monogamy,marriage%20by%20the%20ninth%20century.>
- Rowe, Patrick J., Frank H. Comhaire, Timothy B. Hargreave, Ahmed M. A Mahmoud, and World Health Organization. *WHO Manual for the Standardized Investigation, Diagnosis and Management of the Infertile Male*. UK: Cambridge University Press, 2000.
- Sallam, H. N. and N. H. Sallam. "Religious aspects of assisted reproduction." *Facts Views Vis Obgyn*. 8 (2016): 33-48
- Schudt, Susan. "Paul on Marriage. A short analysis on the changing theology of St. Paul regarding marriage. (2019). Accessed June 26, 2022.

https://www.researchgate.net/publication/335728481_Paul_on_Marriage

Stagg, Frank. *New Testament Theology*. Bodman Press 1964.

Stephens, Patrick C. and Robert G. Edwards. "Birth after Reimplantation of a Human Embryo." *The Lancet*. 312 (1978): 366.

Stewart A. "Customs on betrothal and marriage in the Old Testament." Accessed June 2, 2022. https://biblicalstudies.org.uk/pdf/cbrfj/27_27.pdf

Theroux, David J. "The Historical and Christian Roots of Marriage." Accessed on June 26, 2022. <https://theimaginativeconservative.org/2016/04/the-historical-and-christian-roots-of-marriage.html>

United Press International Inc. "First test-tube babies born in Missouri." Accessed July 20, 2022. <http://www.upi.com/Archives/1985/01/25/First-test-tube-babies-born-in-Missouri/8289475477200/>

Wheat, Ed. *Love Life for Every Married Couple*. Grand Rapids: Zondervan Publishing House, 1980.