Spring 1998

An Exploration of the Role of the Nurse as Client Advocate in the Ethical Dilemmas of In Vitro Fertilization

Kelli Christiaens
Carroll College, Helena, MT

Follow this and additional works at: https://scholars.carroll.edu/nursing_theses

Part of the Nursing Commons

Recommended Citation
https://scholars.carroll.edu/nursing_theses/38

This Thesis is brought to you for free and open access by the Nursing at Carroll Scholars. It has been accepted for inclusion in Nursing Undergraduate Theses by an authorized administrator of Carroll Scholars. For more information, please contact tkratz@carroll.edu.
An Exploration of the Role of the Nurse as Client Advocate in the Ethical Dilemmas of In Vitro Fertilization

Submitted in Partial Fulfillment of the Requirements for Graduation with Honors to the Department of Nursing at Carroll College, Helena, Montana

Kelli L. Christiaens
April 10, 1998
This thesis for honors recognition has been approved for the Department of Nursing.

Tonia Marine, M. N., R. N., C. S.
Assistant Professor, Department of Nursing
Thesis Director

Janis Walrath, M. H. A., R. N.
Assistant Professor, Department of Nursing
Thesis Reader

Dr. Richard Lambert, Ph.D.
Professor, Department of Philosophy
Thesis Reader

April 10, 1998
<table>
<thead>
<tr>
<th>TABLE OF CONTENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
</tr>
<tr>
<td>ABSTRACT</td>
</tr>
<tr>
<td>INFERTILITY</td>
</tr>
<tr>
<td>Definition &amp; Population</td>
</tr>
<tr>
<td>Causes of Infertility</td>
</tr>
<tr>
<td>A Rising Issue</td>
</tr>
<tr>
<td>Physical Implications</td>
</tr>
<tr>
<td>Emotional Implications</td>
</tr>
<tr>
<td>Social Implications</td>
</tr>
<tr>
<td>Financial Implications</td>
</tr>
<tr>
<td>Interpersonal Implications</td>
</tr>
<tr>
<td>IN VITRO FERTILIZATION</td>
</tr>
<tr>
<td>Historical Background</td>
</tr>
<tr>
<td>IVF Procedure</td>
</tr>
<tr>
<td>Controlled Ovarian Hyperstimulation</td>
</tr>
<tr>
<td>Oocyte Retrieval</td>
</tr>
<tr>
<td>Collection of Sperm</td>
</tr>
<tr>
<td>Fertilization of Oocytes</td>
</tr>
<tr>
<td>Embryo Implantation</td>
</tr>
<tr>
<td>ETHICS</td>
</tr>
<tr>
<td>Definition</td>
</tr>
<tr>
<td>Ethical Principles</td>
</tr>
<tr>
<td>Autonomy</td>
</tr>
<tr>
<td>Beneficience</td>
</tr>
<tr>
<td>Confidentiality</td>
</tr>
<tr>
<td>Fidelity</td>
</tr>
<tr>
<td>Justice</td>
</tr>
<tr>
<td>Nonmaleficience</td>
</tr>
<tr>
<td>Utility</td>
</tr>
<tr>
<td>Veracity</td>
</tr>
</tbody>
</table>
CONCEPTUAL FRAMEWORK: Carol Gilligan's Theory on Moral Development

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Historical Background</td>
<td>22</td>
</tr>
<tr>
<td>Relevance to Nursing</td>
<td>25</td>
</tr>
</tbody>
</table>

NURSING ETHICS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition</td>
<td>26</td>
</tr>
<tr>
<td>The American Nurses Association Code for Nursing Ethics</td>
<td>26</td>
</tr>
</tbody>
</table>

SELECTED RELIGIOUS PERSPECTIVES

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roman Catholic Perspective</td>
<td>30</td>
</tr>
<tr>
<td>Use of Fertility Drugs</td>
<td>31</td>
</tr>
<tr>
<td>Cryopreservation of Embryos</td>
<td>32</td>
</tr>
<tr>
<td>Use of Gamete Donation</td>
<td>35</td>
</tr>
<tr>
<td>Selective Termination</td>
<td>38</td>
</tr>
<tr>
<td>Providing IVF for Non-traditional Couples &amp; Individuals</td>
<td>40</td>
</tr>
<tr>
<td>Financial Payment</td>
<td>41</td>
</tr>
<tr>
<td>Accurate Success Rates</td>
<td>43</td>
</tr>
</tbody>
</table>

NURSING CARE

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Nursing Functions</td>
<td>44</td>
</tr>
<tr>
<td>Definition of Client Advocacy</td>
<td>45</td>
</tr>
<tr>
<td>Values Clarification</td>
<td>46</td>
</tr>
<tr>
<td>Informing and Supporting</td>
<td>47</td>
</tr>
</tbody>
</table>

PERSONAL INTERVIEWS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>48</td>
</tr>
<tr>
<td>Design</td>
<td>48</td>
</tr>
<tr>
<td>Method</td>
<td>49</td>
</tr>
<tr>
<td>Analysis</td>
<td>49</td>
</tr>
</tbody>
</table>
Acknowledgements

I wish to express sincere thanks to the Department of Nursing and Department of Philosophy for their support in writing this Honors Thesis. Special appreciation is due to Thesis director, Tonia Marine, and Thesis readers, Janis Walrath and Dr. Richard Lambert, for their time and assistance. Without their guidance, patience, and prompting, this thesis would not have been completed.

Special thanks to my parents, siblings, and their families for their love and support in everything I have done. Thanks to my friends for their support during my years at Carroll College and for their tolerance while I was writing this thesis.
An Exploration of the Role of the Nurse as a Client Advocate

in the Ethical Dilemmas of In Vitro Fertilization

Kelli L. Christiaens

Carroll College

Department of Nursing
Abstract

In the following paper, there will be a discussion on infertility and in vitro fertilization (IVF), with a primary focus on the ethical dilemmas that have arisen with the introduction of IVF. This discussion begins with a description of the scope and experience of infertility, its causes, implications, and nursing care. It will then progress on to the discussion of in vitro fertilization and the procedural steps involved. This is followed by discussion of the background of ethics, basic ethic principles, nursing ethics, and selected religious perspectives. The author will be focusing on the Roman Catholic perspectives in particular. The author will then relate the ethical information to specific ethical dilemmas that have arisen because of the in vitro fertilization procedure. Such ethical dilemmas include conflicting religious beliefs, harmful effects of fertility drugs, genetic testing of preserved embryos, disposal of preserved embryos, gamete donation, selective termination, the use of IVF for non-traditional couples and individuals, financial factors, and publishing accurate consumer information. Carol Gilligan’s theory of moral development will be the conceptual framework for examining these situations. The author will focus primarily on the nursing role of client advocate in the nursing care of clients experiencing such ethical dilemmas. The author will be including information obtained through personal interviews with registered nurses and advanced practice nurses who work with infertility and IVF clients.
An Exploration of the Role of the Nurse as a Client Advocate
in the Ethical Dilemmas of In Vitro Fertilization

Literature Review

Infertility is a crisis that many couples have dealt with medically since the
nineteenth century (Prattke & Gass-Sternas, 1993). However, the area of infertility
services is a relatively new development, available for the past fifty years. This specialty
area of health care made significant advances following the birth of Louise Brown, a
product of artificial oocyte transplantation, in 1978 (Jones, 1994a). Due to the varied
effects that infertility has on couples and society, it has many psychological, ethical, and
social implications requiring caring and considerate quality nursing care. Nurses must
make great efforts to provide optimal support to infertile couples. “The nursing care of
infertile couples is enhanced and more faithful to individual experience when the
complexity and variation of infertility is recognized” (Sandelowski, 1994, p. 749).
Throughout this paper, the term ‘client’ will be viewed as the couples experiencing
infertility and in vitro fertilization, unless otherwise specified.

Infertility

Definition & Population Involved

Infertility is defined as the inability to conceive a child after one year of having
sexual intercourse without using contraceptive measures. In addition, a woman is
considered infertile if she is unable to maintain a pregnancy to a live birth, such as in
spontaneous abortions and stillborn infants (Kaplan & Tong, 1994). Infertility can affect
a woman anytime during the childbearing years. However, infertility has recently been
most prominent in women between the ages of 35 and 40 years due to delays in
childbearing to pursue a career. Infertility does not affect men as often as it does women. Men are able to produce sperm for reproduction until very late in life (Kaplan & Tong, 1994). This issue is highly charged with emotion and affects people in all aspects of life. Infertility is a crisis that forces people to deal with complicated losses. These losses include unfulfilled life goals, conflicting sex-role identities, and decreased self-esteem (Hirsch & Hirsch, 1995). Infertility directly involves and has the greatest impact on the couple hoping to bear a child. However, it also affects the couple as individual persons. The psychological and emotional effects also involve family and friends who make up the couple’s support system (Sandelowski, 1994).

Infertility affects people worldwide. An estimated 10 million people are affected in the United States alone. Statistics indicate one in six couples experience infertility and seek treatment from the health care system (Jirka, Schuett, & Foxall, 1996).

There are a variety of reasons for the diagnosis of infertility. It is not found to be more prominent in any particular race or culture. However, research regarding infertility and its effects has focused on Caucasian, middle to higher income couples with college degrees (Holditch-Davis, Black, Sandelowski, Harris, & Belyea, 1995). Black, Holditch-Davis, Sandelowski, and Harris (1995) report that “...subjects were white and middle class, they were representative of the type of persons who currently are most likely to seek out, and be able to afford, infertility services” (p. 8).

Causes of Infertility

The causes of infertility are varied and complex. Environmental, genetic, pathological and sociobehavioral variables can cause both female and male infertility (Blank & Merrick, 1995). However, a couple’s infertility is usually attributed to a
female origin (Rutter, 1996). Women may experience infertility as a result of developmental and structural defects, endocrine and ovulatory dysfunction, and sexually transmitted diseases. Other causes of female infertility include malnutrition, excessive exercise, and drug and alcohol use (Kaplan & Tong, 1994).

Ovulation dysfunction, such as anovulation [the absence of ovulation], and amenorrhea [when a woman’s menses are not present for a time period of six months or more], can occur under many externally produced conditions. Serious female athletes, women suffering from eating disorders and excessive dieters can develop nutritional imbalances that inhibit menstruation as a biological protection against pregnancy. This protective measure comes into play when a woman’s body is unable to support a pregnancy without causing detrimental effects to both maternal and fetal health (Kaplan & Tong, 1994). Endocrine disorders, resulting from dysfunction in the pituitary, thyroid, and adrenal glands, can cause infertility. Endocrine disorders create abnormal secretions of hormones, such as follicle stimulating hormone and luteinizing hormone, that are required for conceiving and maintaining a pregnancy (Kaplan & Tong, 1994).

Structural and anatomical defects of the ovaries and uterus also contribute to infertility in women. Pelvic inflammatory disease and sexually transmitted diseases can severely damage ovaries. Scarring and blockage of the fallopian tubes also occurs (Kaplan & Tong, 1994). Endometriosis, the inflammation of the endometrium, which can be caused by infections of the cervix and uterine tubes, can lead to infertility (Lowdermilk, Perry, & Bobak, 1997). The use of drugs, such as marijuana, tobacco, and heroin, interferes with the process of ovulation and fertilization of the egg (Kaplan & Tong, 1994). Moderate alcohol use by women may also increase the risk of becoming
infertile as women who consume alcohol experience a greater number of menstrual disturbances and spontaneous abortions (Grodstein, Goldman, & Cramer, 1994).

In addition to examining the multiple conditions and external factors that produce female infertility, the woman’s age must be considered. Female fertility is diminished as a woman ages physiologically. “Fertility in women is low during the early teenage years, peaks in the mid 20’s, and declines after age 30” (Phipps, Cassmeyer, Sands, & Lehman, 1995, p. 1771). The risk of being diagnosed as infertile is doubled for women between the ages of 35 and 40 years as compared to younger women (Phipps et al., 1995).

While infertility is commonly attributed to the woman, men must also undergo full physical examinations to determine fertility status. “About 40% of infertility is the result of ‘female factors’ --- problems with hormones, eggs, or reproductive organs. Another 40% is explained by ‘male factors’ --- problems with low sperm count or slow-moving sperm” (Rutter, 1996, p. 50). If a semen analysis indicates that there is poor sperm production in quantity or quality, a specialist would investigate any dysfunction of the endocrine system. While hormonal deficiencies rarely affect male fertility, “...disorders associated with impaired thyroid, adrenal, hypothalamus, and pituitary activity do exist...” (Kaplan & Tong, 1994, p. 212).

Sperm production is also affected by testicular abnormalities. Testicular abnormalities result from genetic defects, infections, diseases, drugs, high temperatures, physical injury, environmental toxins, or varicose veins in the scrotum. While genetic defects cause permanent infertility, infections and diseases usually cause temporary infertility, but may lead to permanent infertility. “The culprits [infections and diseases]
include adult mumps, tuberculosis, gonorrhea, syphilis, small pox, typhoid, influenza, and hepatic and kidney diseases” (Kaplan & Tong, 1994, p. 212).

High temperatures can decrease sperm production as sperm are extremely sensitive to heat. “High temperatures seem to induce the production of malformed sperm with lowered motility” (Kaplan & Tong, 1994, p. 213). Varicose veins in the scrotum cause malformed sperm and decrease sperm motility. The varicose veins cause blood to accumulate in the scrotum and increase the temperature of the scrotum, which in turn inhibits the sperm production (Kaplan & Tong, 1994).

In some cases of infertility, abnormalities in the man's sperm and seminal fluid reduce the possibility of conception as the sperm cannot survive the journey to the fallopian tubes for fertilization of the female egg (Kaplan & Tong, 1994). Sperm transport problems occur in 7% of infertile men. Transport problems are due to scarring and blockage of the passage from the testes. Such scarring can result from an infection and affects the vas deferens, epididymus, seminal vesicles, prostate, and ejaculatory ducts (Kaplan & Tong, 1994).

The couple is also examined as a unit for inter-related causative factors. Approximately 20% of infertility cases are due to factors in both individuals or have unexplained origins (Rutter, 1996). These cases involve immunologic reactions between sperm and egg or mucus-sperm migration difficulties (Kaplan & Tong, 1994). Sexually transmitted diseases and cancerous obstructions can also inhibit the movement and migration of egg and sperm, thus inhibiting conception (Phipps et al., 1995). Physical examinations are completed on both partners to determine the physiological source of
infertility in a specific partner. However, infertility is considered to be the couple’s problem for which both partners will undergo treatment (Black et al., 1995).

The diagnosis can lead to many emotions, such as frustration. Oftentimes diagnosis and medical intervention are delayed as couples frequently do not discover they are infertile until their attempts to conceive are unsuccessful. “The diagnosis of infertility in the couple involves multiple tests that take from a few weeks to many months to complete and may be associated with significant environmental discomfort” (Schoener & Krysa, 1996, p. 169). The woman must endure the majority of the discomfort, both physical and psychological, as the female investigation is extensive, invasive, and painful. The entire diagnostic regimen is very distressful not only in regard to physical discomfort, but also as the diagnosis of infertility, no matter what the cause, is accompanied by many negative feelings (Prattke & Gass-Sternas, 1993). Initial feelings of disbelief and shock may progress to anger and grief as infertile couples view their infertility as “… a life crisis with a grieving process” (Prattke & Gass-Sternas, 1993, p. 517). This crisis often continues and extends as the couple moves into the arena of infertility treatment.

Infertility: A Rising Issue

Infertility is an increasingly important issue for millions of people internationally. Rutter (1996) states that the infertility crisis has become overwhelming, especially in the United States. However, due to technological advances in the treatment of infertility, pregnancy for an infertile couple is now a possibility. “Technologies such as in vitro fertilization, artificial insemination, oocyte retrieval and donation, and hormonal stimulation have increased the likelihood of conception” (Black et al., 1995, p. 1).
Although there have been many success stories for infertile couples, infertility continues to have a drastic impact on a couple’s life in all aspects: physical, emotional, social, financial, and interpersonal. Infertility is a major life crisis that along with treatment may continue to be unresolved for several years. It is a crisis for a couple and their family personally, infertility has many social and ethical implications and dilemmas that will have to be addressed by the nursing profession (Gennaro, Klein, & Miranda, 1992).

Physical Implications

The physical impact that the infertility crisis has on an individual and couples is dramatic. The diagnosis and treatment of infertility includes many invasive and embarrassing physical examinations and procedures that are very stressful to women and men (Denny, 1993). The diagnosis of infertility alone causes anxiety as it verifies that there is something ‘abnormal’ with the reproductive capabilities of either the individuals or the couples as a unit (Johnson, 1996).

Many procedures must be completed when clients begin the IVF process. “The diagnosis of infertility in the couple may involve multiple tests that take from a few weeks to many months to complete and may be associated with significant environmental discomfort” (Schoener & Krysa, 1996, p. 196). Once diagnosis is confirmed and causal factors are identified, the individuals have many reproductive options as a means to achieve pregnancy and bear a child. Many people choose IVF as treatment at some point. By electing to undergo IVF, individuals enter a long period of treatment. The success of the IVF depends on many factors, and the majority of clients do not achieve pregnancy on the first attempt and must undergo many more IVF attempts (Denny, 1996).
Emotional Implications

The inability to achieve a pregnancy and the repeated IVF attempts create extensive emotional difficulties. Jirka et al. (1996) report that “...infertility and its diagnostic investigation and treatment processes evoke many feelings in men and women...” (p. 55). IVF clients experience a fluctuation of emotions while going through the process. Some clients have described the IVF process as tortuous cycles of hope and despair. Denny (1993) compared “…the emotions evoked by the IVF procedure to a roller coaster” (p. 512). These emotions include hope, despair, joy, anger, guilt, frustration, and isolation (Prattke & Gass-Sternas, 1993).

The diagnosis and treatment evoke more intense emotions in women than in men. “Wives and husbands may experience differing emotional reactions and symptoms associated with infertility” (Prattke & Gass-Sternas, 1993, p. 517). Often times, women experience more guilt, frustration, anger and isolation than men and take a longer period of time to come to terms with the situation. Women perceive infertility and IVF as drastic emotional strain and consider the experience to be much more stressful than their male partners do (Prattke & Gass-Sternas, 1993). This occurrence may be related to women placing a higher significance on parenting. Johnson (1996) reports that “researchers have noted that procreation has a central meaning to the identity of women” (p. 291). Often times differences in the emotional experience and perceptions of women and men lead to discord and conflict between the two partners (Jirka et al., 1996).

Social Implications

Jirka et al. (1996) states “infertility itself might serve to estrange couples from their friends because it carries a social stigma” (p. 56). In American society, social and
cultural norms place a great emphasis on procreation within the marital relationship. Infertile couples experience a stigma as they are perceived as not being "up to par" with the expectations of being a reproductive unit (Jirka et al., 1996). Most people view becoming parents and creating a family as a natural occurrence in life. Frequently, society views those experiencing infertility as being unnatural and abnormal. This unfortunate viewpoint often lowers infertile individuals' self-esteem (Johnson, 1996). "Infertility taps into our deepest anxieties about what it is to be a man or a woman, a core part of our identity" (Rutter, 1996, p. 51).

Due to social gender roles and expectations and the gynecological focus of infertility, women experience a high degree of the emotional, physical, and social burdens of infertility (Sandelowski, 1994). Thus, women commonly experience infertility as a catastrophic event and a failure in one's role in life. Men commonly view infertility quite differently as "...an unfortunate event that could be put into perspective and then ignored" (Holditch-Davis et al., 1995, p. 418).

Differences in perception and experience between partners, along with the social stigma and labeling, cause couples to not seek out and utilize support from their family and friends. They fear that others will not understand and accept what they are experiencing (Jirka et al., 1996). "It's a loss that can be difficult to share because it's the death of something that never was" (Rutter, 1996, p. 54). Infertile couples have difficulties seeking support and comfort spiritually within their religion as "...most religions declare that the purpose of marriage is to procreate, an act necessary in successfully fulfilling religious obligations" (Johnson, 1996, p. 292). If a moral and societal significance is placed within the procreative capacity as a means to fulfill
religious expectations, a couple's self-esteem and self-worth is diminished once again (Johnson, 1996).

As a means to avoid this perceived lack of self-worth, infertile couples and women cope by avoiding people or activities that are reminders of their infertility. Difficulty in sharing pain and avoidance of social activities isolate couples from much needed support systems during a time of significant stress (Jirka et al., 1996). Schoener and Krysa (1996) state “... infertility is not visible, life-threatening, or disfiguring, so it is often a life crisis experienced by couples in isolation” (p. 168).

Financial Implications

Treatment for infertility causes extensive stress for IVF clients in regards to financial payment. It was estimated that approximately $1 billion was spent on infertility treatment in the early years of reproductive technology. This monetary amount has increased drastically in recent years due to technological advances and commercialization of IVF (Gennaro et al., 1992). IVF is among the most expensive of infertility treatments and ranges from $8,000 to $12,000 per attempted cycle (Humber & Almeder, 1996). Thus, the financial burden placed on IVF clients is tremendous in itself alone. This burden is extensive as the majority of health insurance plans do not provide coverage for infertility treatment (Rutter, 1996). “Although financial expenditures might be a burden for couples, having to make a choice between risks and costs of infertility treatments was an additional hardship” (Blenner, 1992, p. 94).

Interpersonal Implications

There is little doubt that infertility and IVF create extensive stress and burdens for clients. This stress also impacts the relationships between the two partners and with their
In Vitro Fertilization 13

social support system. "Infertility is a developmental crisis that affects the individual and the marital relationship" (Schoener & Krysa, 1996, p. 169). Infertility and IVF cause issues that the client has not experienced before in their relationship. Thus, they have limited or no coping strategies to deal with their stress and situation (Prattke & Gass-Sternas, 1993).

Many factors regarding IVF affect both partners. However, these factors affect women and men differently. For example, one partner may become resentful of the other or place blame for the cause of their infertility. Clients experience a lack of privacy, feel that they have no personal life, and feel that their sexual relationship has been drastically altered (Prattke & Gass-Sternas, 1993). Blenner (1992) reports that "over time, many couples began to perceive coitus as no longer an enjoyable act but as part of the treatment regimen" (p. 94). Men felt that they were simply performing sexual intercourse on demand and for clinical purposes rather than affection or fun. Many men experience 'performance anxiety' which causes tremendous discord between the partners (Blenner, 1992).

Financial implications of IVF also tax clients and cause relationship discord. Many couples experience more discontent as the investment in IVF increases. Clients must make decisions regarding the continuance or discontinuance of IVF due to financial constraints (Blenner, 1992). In some cases, one partner wants to continue IVF, while the other wants to discontinue what is perceived as a fruitless, expensive, frustrating process. This discord may lead to isolation between partners at a time when emotional and psychological support is drastically needed. "One partner may become engrossed in the infertility experience and become isolated from the other partner" (Jirka et al., 1996, p.
Lack of communication and discord between partners may eventually lead to the breakdown of the relationship (Jirka et al., 1996).

IVF clients also experience isolation from friends, family, and society due to societal perceptions that infertility is a defect or abnormality. This stigmatizes the individuals and reduces the amount of social support that the clients receive. For the family and friends, it may be difficult to understand what the infertile loved one is experiencing (Rutter, 1996).

In Vitro Fertilization

Historical Background

Advances in assisted reproductive technology (ART) in the past twenty years have enabled many infertile individuals to bear children successfully. Of the various ART procedures, in vitro fertilization (IVF) is the most widely utilized technique (Kaplan & Tong, 1994). IVF is an advanced procedure in which female eggs, also known as oocytes or ova, are removed from the female ovaries to be fertilized with the male sperm outside the body. The fertilized eggs are then implanted into the uterus as developing embryos (Blank & Merrick, 1995).

IVF has been researched extensively in the 20th century. “Efforts to fertilize the human egg in vitro were made in the early 1950’s” (Mastroianni, 1996, p. 90). However, IVF was not successful until the late 1970’s, when Drs. Patrick Steptoe and Robert Edwards fertilized an egg and transferred the fertilized egg into an English woman’s womb without complications. This transfer became a universal triumph in July 1978, when Louise Brown was born (Kaplan & Tong, 1994). In the years following Brown’s conception and birth, IVF has been utilized in several nations (Jones, 1994b).
In Vitro Fertilization Procedure

The IVF process "entails a lot of commitment, especially for women" (Denny, 1993, p. 514) due to the necessary invasive procedures that involve the female partner. The IVF process has many stages and creates a high level of anxiety in women who are undergoing the process. This anxiety is reported by a majority of women regardless of having received adequate information regarding procedures (Denny, 1993). A qualitative study by Denny (1993) based the interviews of 10 women undergoing or having undergone IVF indicated that IVF is an anxious and exhausting process. The anxiety first begins in just deciding to have the procedure done. Informants had received adequate education and information regarding IVF, but still felt that they did not know enough. "I felt really, really nervous before the first one. I hadn’t got a clue. I’d heard all the stories about needles. I thought bloods were going to be taken every day, I was incredibly nervous about the whole thing" (as cited in Denny, 1993, p. 513). Once the IVF process began, informants reported that they felt their lives were taken over by some power. Each stage of IVF was overshadowed by anxiety in some form or other. In the first two weeks, there is a continuous regimen of injections, ultrasounds, and physical examinations. Once the women began taking the drug regimen, there was the concern for developing ovarian hyperstimulation syndrome prior to the time in which eggs would be removed and fertilized. This anxiety progressed to fear that implantation would not take place (Denny, 1993). This study indicated that while the physical and mechanical process is taxing, the emotional and psychological fear and anxiety are overwhelming for IVF clients and must be considered (Denny, 1993).
Controlled Ovarian Hyperstimulation

The objective of ovarian hyperstimulation, or “superovulation”, is to stimulate the development of oocytes through the use of synthetic hormonal medications (Robinson, 1997). Fertility medications, such as Clomid, Pergonal (Raymond, 1993), and Humegon (Hurley, 1995), contain supplemental substances of synthetic follicle stimulating hormone, luteinizing hormone, and human chorionic gonadotropin. These supplements promote the maturation of several follicles between the third and fifth day of a 28 day menstrual cycle. During this period, the follicles are monitored for growth by ultrasound as a means to determine when it is appropriate to undergo oocyte retrieval (Robinson, 1997).

Oocyte Retrieval

Just prior to the woman ovulating, a physician must conduct retrieval of the oocytes. In previous years, oocytes were collected through a surgical laproscopic procedure in which the eggs were collected through an incision in the abdominal wall. This laproscopic procedure required that the client be under a general anesthesia (Kaplan & Tong, 1994). In recent years, the oocyte retrieval procedure has been modified. “Oocytes are no longer recovered laproscopically but are retrieved transvaginally under sonographic control” (Mastroianni, 1996, p. 90). In this updated procedure, the client is under the influence of intravenous conscious sedation, as general anesthesia is associated with decreased fertilization success (Robinson, 1997).

During oocyte retrieval, the physician inserts a vaginal ultrasound probe with an attached biopsy guide through the vagina to the cervix. While visualizing the ovaries and follicles on an ultrasound monitor, the physician aspirates as many as fifteen to
twenty oocytes from each ovary (Robinson, 1997). The retrieval procedure is completed within thirty minutes (Kaplan & Tong, 1994). The oocytes are then immediately transferred to a laboratory and placed in a nutrient solvent. The oocytes are incubated for four to eight hours (Kaplan & Tong, 1994).

Collection of Sperm

A semen sample is collected in preparation for the fertilization of the oocytes. A semen sample is collected from the male through masturbation. The sample must be brought to the laboratory within one hour of ejaculation (Kaplan & Tong, 1994). The semen is washed in a liquid medium and centrifuged. This separates the sperm and seminal fluid. As important and necessary as the seminal fluid is to the sperm for protective reasons, it contains some chemical substances that can inhibit fertilization (Kaplan & Tong, 1994). As the semen sample is washed, the sperm experiences conditions similar to that of the travel through the female vagina, cervix, uterus, and fallopian tubes. This increases the sperm’s ability to penetrate and fertilize the egg. The sperm is then incubated for one to two hours. During incubation, the most active sperm swim into the upper layer of culture medium. The most active sperm are used to fertilize the oocytes as they have the greatest chance for survival (Kaplan & Tong, 1994).

Fertilization of Oocytes

Following egg retrieval, the clients wait 24 to 48 hours to receive news on whether external fertilization was successful (Denny, 1993). During this time, lab technicians progress with the fertilization process. Robinson (1997) reports that “oocytes cannot survive independently, they cannot be frozen, and they must be fertilized with sperm that has been collected” (p. 92). A high concentration of sperm sample is
applied directly to the eggs as soon as possible. The eggs are then incubated again and “fertilization should occur within 16 to 18 hours after insemination” (Robinson, 1997, p. 92). If fertilization is successful, the fertilized oocyte is incubated in a culture medium that is specifically designed to support and promote embryonic development. The developing embryos are monitored for growth and cell division. The eggs that develop the fastest are prime candidates for implantation into the uterus (Kaplan & Tong, 1994).

**Embryo Implantation**

Implantation occurs approximately two days following the external fertilization. At this point the fertilized oocytes have developed into blastocysts, which are embryos that have divided into two to eight cells (Kaplan & Tong, 1994). The blastocysts are introduced into the woman’s uterus via a long catheter tubing inserted through the vagina into the cervix. If successful, the embryos will implant into the uterine wall in six to nine days and result in pregnancy (Blank & Merrick, 1995).

**Ethics**

**What is Ethics?**

Fletcher, Holt, Brazier, and Harris (1995) define ethics as “…a branch of philosophy concerned with the character and conduct of individuals” (p. 3). Ethics focuses on the needs and values of human beings along with the judgments that humans make because of such values (Fletcher et al., 1995). Ethics affects many areas of life. Health and actions to maintain health cause a high degree of ethical concern. Concerns about health extend far beyond a sense of physical well-being to encompass a state of complete physical, mental, and social well-being (Ashley & O’Rourke, 1997). Since ethics is concerned with the human need of health and overall well-being, health care
must focus on achieving good and avoiding harm in all domains of life (Bandman & Bandman, 1995).

Bioethics refers to the application of ethical principles and moral reasoning to issues raised by life sciences, medical treatments, and the increased use of advanced technologies. “Bioethical decisions are quite simply ‘life choices’ – choices regarding the meaning of life, its beginning, the quality of its continuation, and its end” (Howell & Sale, 1995, p. 1). The challenges raised by bioethical dilemmas regarding private moral choices and public policy formation raise many difficult questions that can be addressed with basic ethical principles (Howell & Sale, 1995).

**Ethical Principles**

Ethics in health care include the following general moral principles: 1) autonomy, 2) beneficence, 3) confidentiality, 4) fidelity, 5) justice, 6) nonmaleficence, 7) utility, and 8) veracity (Veatch, 1997).

**Autonomy.**

The duty of autonomy is one’s obligations to respect the wishes of people deemed competent (Veatch, 1997). Health care providers must respect an autonomous individual in both attitude and action by acknowledging that individual’s right to hold opinions, make decisions based on personal values and beliefs, and act on such decisions. “The principle of respect for autonomy should be viewed as a stalwart right of authority to control one’s personal destiny…” (Beauchamp & Childress, 1994, p. 127). Even if health professionals are emotionally and intellectually opposed to a client’s opinions and decisions, they are obligated to respect the client as is, not as the health care professional would like him/her to be (Pellegrino, 1996).
Beneficence.

Beneficence is the obligation to take actions that will benefit others (Veatch, 1997). Morality requires that health care providers contribute to the welfare of others through acts of kindness, mercy, and charity. Beauchamp and Childress (1994) state that “…beneficence is central, in part because it is conceived as an aspect of human nature that motivates us to act in the interest of others…” (p. 260). The obligations to contribute benefit, prevent and remove harm, and weigh and balance an action’s potential benefits against harm are central to biomedical ethics (Beauchamp & Childress, 1994).

Confidentiality.

Confidentiality encompasses the obligations and commitment to respect an individual’s privacy, along with safeguarding confidential information (Veatch, 1997). Clients have the right to know that any information they provide will be kept private and confidential. If clients are fearful that the information they disclose to health professionals will not be kept private, they may not provide honest information regarding their health and wellness (Ashley & O’Rourke, 1997). The right of privacy demands that no information be shared or released unless the individual provides informed consent for information release (Ashley & O’Rourke, 1997). The standard that professionals are obligated to preserve personal information as confidential is disregarded in situations when such confidential information places the common good of society at risk (O’Rourke & Boyle, 1993).
Fidelity.

The principle of fidelity ensures that all promises and contracts must be kept and completed (Veatch, 1997). In regard to fidelity, there is “a disposition to be true to one’s word…” (Beauchamp & Childress, 1994, p. 430). The foundation of the relationship between a client and a health care professional is that of trust. Thus, the principle of fidelity is not only based on a professional’s word, but his/her loyalty to the client’s values and decisions (Beauchamp & Childress, 1994).

Justice.

Justice is the obligation to be fair and to extend equal treatment to any person regardless of status or situation (Jecker, Jonsen, & Pearlman, 1997). Health care professionals frequently face situations in which a sense of fairness must prevail. A prime example of justice is providing treatment to all those in need of it regardless of financial situation (Kozier, Erb, Blais, & Wilkinson, 1995).

Nonmaleficence.

Nonmaleficence includes obligations to do no harm to another intentionally or unintentionally as a result of medical treatment (Veatch, 1997). Nonmaleficence is the duty to protect all humans. This includes those individuals who do not have the ability to protect themselves, such as unborn children, pediatric clients, and individuals deemed incompetent of stating rational needs (Jecker et al., 1997). If health care professionals do not fulfill the obligation to guard and protect humans against the risk of harm or injury, they are negligent in their care (Beauchamp & Childress, 1994).
Utility.

Veatch (1997) refers to utility as “…obligations to produce a net balance of benefits over harms…” (p. 33). Utility emphasizes that humans should always attempt to produce the maximal beneficial value over harmful effects. If only undesirable effects are possible in a situation, humans must attempt to produce the least possible harm overall. “The goal is to find the single greatest good by balancing the interests of all affected persons” (Beauchamp & Childress, 1994, p. 49).

Veracity.

Veracity is the obligation to tell the truth and be honest about all information regarding another individual (Kozier et al., 1995). Beauchamp and Childress (1994) report that “…virtues of candor and truthfulness are among the most widely praised character traits of health professionals…” (p. 395). Veracity is especially important in nursing care because the client’s loss of trust in the nurse creates anxiety and distress. This anxiety and distress outweigh any possible benefits that may be brought about by lying or withholding information (Kozier et al., 1995).

Conceptual Framework: Carol Gilligan’s Theory on Moral Development

Historical Background of Gilligan’s Theory

Caring has been a central foundation to nursing since the beginning of the profession. Carol Gilligan, a former student and colleague of Lawrence Kohlberg, developed a theory of moral development that accurately describes the fundamental aspect of caring in the nursing profession (Peter & Gallop, 1994). Gilligan developed this model after years of studying Kohlberg’s theory of unidimensional moral
development, which focused on the moral development and reasoning of men
(McFadden, 1996).

Kohlberg’s theory, the justice perspective, describes six stages and three levels of
moral development that are based on a central idea of justice. Kohlberg based his theory
on the results of studies on the moral development and reasoning process of all male
samples. Level I, the preconventional stage, is characterized by the concepts of
punishment and obedience. In this level, the individual obeys authority to avoid any
punishment. The second level, the conventional stage, involves the individual being
concerned with gaining the approval of others and conforming to a social standard. An
individual determining what is right and wrong characterizes the third level, or the
postconventional stage. In this stage, Kohlberg places emphasis on equality and mutual
obligation in a democratic order (Gibson, 1993). Progression through the stages is
sequential and individuals cannot skip stages, regress to stages already reached, or have
an understanding of stages above their present achievement. In Kohlberg’s theory, moral
judgments are made in an impartial and rational manner and by using standard ethical
principles. “Kohlberg’s theory maintains that moral reasoning is unaffected by either the
content or the context of a moral dilemma” (Gibson, 1993, p. 2005). His theory, based
on studies of the moral reasoning of the male population, was extended to women,
assuming that men and women are interchangeable in their moral reasoning (Millette,
1993).

Gilligan noted that Kohlberg’s theory of moral development is based on
traditional assumptions of moral philosophy and ethical principles that fail to account for
the female experience and moral development (Millette, 1993). Gilligan noticed that
women consistently scored lower than men on Kohlberg’s measurement tool. Thus, according to Kohlberg’s measurement tool, the female care and sensitivity for another’s needs was actually their deficiency in moral development. Gilligan did not accept this finding as the theory was not considering the female experience in moral dilemmas. She instead concluded that women and men differ in their moral development and reasoning (McFadden, 1996).

Gilligan’s theory, the care perspective, views moral maturity and reasoning as having interconnectedness with all people (Millette, 1994). “The care perspective, or women’s attitude of moral development, places the importance of connection between self and others and the universality of the need for compassion and care for both sexes” (McFadden, 1996, p. 509). Thus, a moral person is an individual who responds to the needs of others and demonstrates care and responsibility in relationships with others, while maintaining one’s own self-dignity and obligations. This theory is not based on a hierarchy of stages as Kohlberg’s was, but allows for individuals to fluctuate between stages of moral reasoning depending on the specific situation at hand (Millette, 1993).

Gilligan believes that both an ethic of care and an ethic of justice are necessary components of moral reasoning. In incorporating these principles, individuals are able to evaluate the same situation from two equally valuable perspectives (Gibson, 1993). “Therefore, moral reasoning is construed as multidimensional and as a composite of both justice and care perspectives” (Gibson, 1993, p. 2006). Thus, when the care and justice perspectives and components are used together, individuals utilize the highest form of moral maturity and reasoning (Gibson, 1993). While Gilligan does not place great emphasis on the use of ethical principles as the basis of moral development and
reasoning, she does acknowledge the value and importance of knowing and understanding their purpose. “Since the nurse is an important moral agent and advocate for the client, knowledge and understanding of ethical theories and principles are vital” (Gibson, 1993, p. 2006).

Relevance to Nursing

The nurses who work with IVF clients encounter several complex dilemmas. “Nurses who teach, advise, and advocate for women who are making reproductive health decisions encounter complex moral dilemmas that are influenced by their values and those of the individual client” (McFadden, 1996, p. 507). Gilligan’s theory is appropriate for the nursing profession for a variety of historical and current reasons. Historically, nursing has always had a strong connection with the commitment of caring. Gilligan defines care as “...empathy and connection in relationships with others” (as cited in McFadden, 1996, p. 508). The relationship that a nurse has with his/her client is based on an interconnection and trust amongst all parties involved. This interconnection creates a web of relationships, in which the nurse is an essential component to provide caring to those in need (Gibson, 1993).

The goal of the interconnections between people is not to reach an agreement, but to experience an understanding of the situations and feelings of all involved (Peter & Gallop, 1994). Dilemmas can become very uncomfortable if agreement is not made by all, but Gilligan’s theory emphasizes that moral maturity is accepting the responsibility for maintaining a relationship even when it is uncomfortable to do so (Millette, 1993). Nurses accept this challenge of understanding others’ opinions even if they personally are not in agreement with the issue at hand. Nurses must understand that clients make
decisions based on their experiences and potential consequences. While many nurses are not able to accept and agree with the decisions IVF clients make, they must be able to have an understanding of the issues.

**Nursing Ethics**

Nursing ethics emphasizes empowering persons experiencing ethical dilemmas to make personal solutions that will be of maximum benefit to them rather than providing authoritative solutions to such dilemmas (Bishop & Scudder, 1996). Nurses are indispensable in the ethical decision making process because they have continuous contact with clients and families. This contact allows for nurses to learn and understand clients' personal fears, hopes, regrets, and desires (Bandman & Bandman, 1995). Nurses are the vital resources necessary to enable clients to reach personally satisfactory solutions (Bishop & Scudder, 1996). By enabling clients to act for themselves, nurses “...conserve that which is of value to every individual – the optimum functioning of all body systems and of the whole as an integrated unit” (Bandman & Bandman, 1996, p. 5).

**The American Nurses Association Code for Nursing Ethics**

The American Nurses Association (ANA) Code for Nursing Ethics is the formal statement of the ANA’s ideals and values. It is the set of all ethical principles shared by all its members. It reflects the members' moral judgments and serves as the standard for ANA members' professional actions (Kozier et al., 1995).

According to the ANA code, the nurse:
• provides services with respect for human dignity and the uniqueness of the
[client] unrestricted by considerations of social or economic status, personal attributes, or the nature of health problems
• safeguards the [client's] right to privacy by judiciously protecting information of a confidential nature
• acts to safeguard the client and the public when health care and safety are affected by the incompetent, unethical, or illegal practice of any person
• assumes responsibility and accountability for individual nursing judgments and actions.
• maintains competence in nursing
• exercises informed judgment and uses individual competence and qualifications as criteria in seeking consultation, accepting responsibilities, and delegating nursing activities to others
• participates in activities that contribute to the ongoing development of the profession's body of knowledge
• participates in the profession's efforts to implement and improve standards of nursing
• participates in the profession's efforts to establish and maintain conditions of employment conducive to high quality nursing care
• participates in the profession's effort to protect the public from misinformation and misrepresentation and to maintain the integrity of nursing.
• collaborates with members of the health professions and other citizens in promoting community and national efforts to meet the health needs of the public (Shaw & Mason, 1992, p. 285).

Selected Religious Perspectives

In discussing ethical dilemmas, it is virtually impossible to separate Christian ethics and religious beliefs from bioethical or medical dilemmas. Each religion has various views on the issues of reproduction and IVF. However, due to the author’s frame of reference and Carroll College’s mission statement, the Roman Catholic perspective will be explored. The difficulty in separating religious perspective from bioethical dilemmas centers around the theological belief that Jesus Christ was a healer in his time and the basic foundation that Christian life is based on, the principles of beneficence and nonmaleficence. Christians place great emphasis on extending compassion, caring, and charity to all those in need (Pellegrino, 1996). “The Bible, which for the Christian is a privileged interpretation of that history, provides a realistic model for good human character which applies with special force to the health care professional” (Ashley & O’Rourke, 1997, p. 180). The same basic belief is the foundation of medicine, as is demonstrated in the physician’s Hippocratic Oath, “I will use treatment to help the sick according to my ability and judgment, but I will never use it to injure or wrong them” (Beauchamp & Childress, 1994, p. 189). The nursing profession is grounded in beneficence, nonmaleficence and the commitment to help clients to maximize spiritual well-being (Bandman & Bandman, 1995).

To understand how Christian ethics and values relate to health care dilemmas, one must have an understanding of how Christianity views human life. “The Christian
view of the human person is based on the biblical teaching that each human being is created by God in his own likeness...” (O’Rourke & Boyle, 1993, p. 4). Through God’s creation, each human is a unique irreplaceable being that is called toward personal maturity and eternal life. To attain a sense of fulfillment and eternal life, humans have the freedom of choice and create their own character and destiny. “Because of each person’s relationship to God, human life is sacred” (O’Rourke & Boyle, 1993, p. 4).

Ashley and O’Rourke (1997) state that “bioethics has raised new questions to which the Church in the interest of the dignity of the human person and the value of human life has found it necessary to make a response” (p. 186). The principle of human dignity in community is based on the human need to attain true spiritual fulfillment. Ashley and O’Rourke (1997) state that “…human dignity in community sums up the true goal of human life: Integral human fulfillment in relation to God and neighbor” (p. 215). Thus, “we can attain integral human fulfillment only in a community of people, and that means that we each must not only respect the rights of others, but must be actively concerned to promote each other’s welfare...” (O’Rourke & Boyle, 1993, p. 6).

In the Roman Catholic doctrine, humans are God’s creation of body and spirit directed towards a spiritual destiny, personal salvation, and concern for the intrinsic value and salvation of others. Thus, Christian health care professionals are called to guard and protect the human dignity of all human life, potential and established (Pellegrino, 1996).

Ethical Dilemmas

Advances in medical knowledge and technology, along with changes within the political and social systems, have created many ethical dilemmas for health care
professionals and clients. "The ethical implications of the use of new reproductive technologies to treat infertility are not subtle" (White, 1992, p. 351). Benjamin and Curtis (1992) define an ethical dilemma as "...a situation requiring a choice between what seems to be two equally desirable or undesirable alternatives" (p. 4). Gillon (1994) reports that "the newer infertility treatments are relying on advanced scientific techniques which are being developed at a pace which allows little time for an adequate assessment of their social and ethical implications" (p. 605). A perfect example is in vitro fertilization (IVF), which can create various dilemmas regarding religious beliefs, harmful effects of fertility drugs, cryopreservation and disposal of embryos, selective termination, use of donor gametes, IVF for nontraditional couples, high costs and availability of IVF, and the reporting of misleading information regarding success rates (Braverman & English, 1992).

Roman Catholic Perspective

Religious groups, especially Roman Catholicism, are involved in many ethical issues. IVF and other assisted reproductive technologies create major concern for the Roman Catholic Church and its leaders. Overall, the procreation of children within a Catholic marriage is of vital importance, and a husband and wife are to "...accept children lovingly from God" (Fryday, 1995, p. 31). This belief is based on the Roman Catholic Church's principle of personalized sexuality, which states that the family is the fulfillment of human sexuality and that the unitive, procreative acts of producing children must not be separated by a deliberate human act (Fryday, 1995). Thus, the Roman Catholic doctrine states that assisted reproductive technologies "...intrude into the realm of reproduction such that conception may no longer be a normal biologic
process or a product of an act of love within the institution of traditional marriage” (Braverman & English, 1992, p. 355). If a Catholic married couple is diagnosed with infertility, they are urged to accept that the blessing of a child is a gift, not something that is owed (Fryday, 1995). They are not encouraged to pursue assisted reproduction and IVF, as it is viewed as a deliberate act against the natural and moral order of God’s will (Ashley & O’Rourke, 1997). Instead, the couple should accept their situation with dignity and focus their attention to God’s work (Fryday, 1995).

Use of Fertility Drugs

Fertility drugs are utilized in IVF due to a high failure rate in the implantation of embryos. “Superovulation was introduced in order to maximize the chances of successful treatment” (Gillon, 1994, p. 609). The use of Humegon (Hurley, 1995), Clomid, and Pergonal result in the release of multiple eggs. Thus, more embryos can be fertilized and implanted (Humber & Almeder, 1996). However, these drugs can also result in acute life-threatening complications such as ovarian hyperstimulation syndrome (OHS). Fertility drugs can cause OHS by enhancing ovarian follicle development and increasing human chorionic gonadotropin levels. This causes many physiological effects throughout the body. “The central defect in OHS is altered capillary permeability resulting in capillary leakage and third space fluid accumulation” (Hahn, Burkowski, & Capper, 1994, p. 219). This leakage can progress to several critical conditions, including Adult Respiratory Distress Syndrome due to ascites and pleural effusion, deep vein thrombosis, stroke, hyperkalemia, hypovolemia, insufficient renal perfusion, and acute renal failure (Hahn et al., 1994). Marked ovarian enlargement also occurs and the
In Vitro Fertilization

ovaries may rupture, thus placing the client at risk for ovarian cysts and torsion (Hahn et al., 1994).

Fertility drugs may also cause potential long-term health risks for women, including the development of breast and ovarian cancer (Healy, 1995). "For all women exposed to infertility interventions, we must determine the long-term health impact of the special treatments, drugs, and drug combinations by dose and exposure time" (Healy, 1995, p. 109). The effects of these powerful drugs on the resulting children are unknown. Harmful long-term effects may start to present themselves in the future years as children conceived with the help of fertility drugs age (Raymond, 1993).

The Roman Catholic religion recognizes the use of fertility drugs for ovarian stimulation as an acceptable infertility treatment in so far as it simply enhances the natural process of reproduction. However, the method is given little support due to the high potential for women and their children developing long-term health effects (Fryday, 1995).

Cryopreservation of Embryos

Cryopreservation is the process of freezing tissue in order to preserve it for an indefinite period of time for use in the future (Howell & Sale, 1995). This process is used to preserve fertilized embryos to be implanted in future IVF procedures. Cryopreservation is used to reduce the risk of developing a grand multiple pregnancy of four or five fetuses by allowing some of the fertilized embryos to be preserved for later IVF attempts (Howell & Sale, 1995). Cryopreservation uses chemical preservatives and a slow cooling/freezing process to preserve embryos. It poses complex choices and ethical dilemmas for all involved (Gillon, 1994). Once the embryos are preserved, there are
many more difficult decisions to be made. Ethical dilemmas arise because, even if embryos are not deemed human beings, they still have the potential for human life. The American Fertility Society states "... that preembryos are not, strictly speaking, either 'persons' or 'property', but occupy an interim category that entitles them to special respect because of their potential for human life" (Monagle & Thomasma, 1994, p. 65).

The ethical implications of experimenting on human embryos are abundant. These dilemmas are centered on the special dignity that is held for potential human life (Gillon, 1994). Experimentation on embryos is questionable and the United States federal government has banned the use of federal funding for human embryo research. The American Fertility Society has also formed guidelines restricting embryo research and experimentation (Monagle & Thomasma, 1994).

Prior genetic research has enabled health care professionals to determine an embryo's sex and predisposition for certain congenital anomalies (Pickler & Munro, 1994). There is great concern regarding disposal of embryos because genetic testing has indicated that the embryo(s) may be of the undesired sex or have a congenital anomaly (Gillon, 1994).

Pickler and Munro (1994) raise the question, "Should potential parents be allowed to have a blastomere (developing embryo) with known genetic defects implanted?" (p. 381). Health care professionals debate whether implanting a genetically defective embryo will result in a poor quality of life for the resulting child because of the defect. Thus, many question if "...any life, even one fraught with constant crises, is better than no life at all" (Pickler & Munro, 1994, p. 381).
The concerns surrounding the disposal of embryos of the undesired sex take on another light. Jones (1994a) reports that “the development of technology to enhance the probability of conceiving a child of a specific sex has been attempted for many years…” (p. 494). However, Green, Wray, and Baluch (1993) report that a majority of society “...is adamant in saying no to those who promote tampering with choosing a baby’s sex” (p. 170). Many question the method of disposing of embryos. There must be a proper, dignified method of disposal for any unwanted or surplus embryos, as the scientists are disposing of what could potentially result in a human being (Gillon, 1994).

There are concerns about what should happen to preserved embryos should the prospective parents die or become divorced. In such cases, the question is whether embryos are considered to be human individuals or property (Capron, 1993). If cryopreserved embryos and preserved gametes are considered to be property, questions arise as to who has legal ownership: the clinic, couple, or individual partners (Veatch, 1997). Judicial courts worldwide have struggled with cases involving the death or divorce of the prospective parents. These legal proceedings take into consideration whose rights are of priority. Some believe that courts should consider cases “… in terms of benefit, harm, and respect…” (Monagle & Thomasma. 1994, p. 67) for all humans involved, including the potential humans or embryos. Most IVF programs now ask couples to document what they would want done with their frozen embryos in the event of death or divorce (Jones, 1994a).

The Roman Catholic doctrine views the cryopreservation of embryos for future use or experimentation as an equivalent to abortion. “Extra embryos are routinely frozen or used in experimentation and such practices constitute the moral equivalent of
abortion" (Ashley & O'Rourke, 1997, p. 247). This is because the embryos are externalized from the human body, which places their potential human lives in danger. The Roman Catholic doctrine also views the disposal of preserved embryos as abortion or murder as it is the disposal of potential human life (Ashley & O'Rourke, 1997).

Use of Gamete Donation

Gamete donation has made pregnancy a realistic option for infertile individuals and couples (Haimes, 1993). The introduction of gamete donation brought on more complicated ethical and legal issues (Braverman & English, 1992). Sperm donation is one of the simplest and the most widely used infertility procedure. The first case of donor sperm resulting in a pregnancy was reported in 1866. Oocyte donation is a relatively new and complicated procedure of infertility treatment, with the first pregnancy resulting in 1981 (Goode & Hahn, 1993).

There are many reasons that gamete donation is introduced into the IVF procedure. Many women experience ovarian dysfunction and failure following medical treatments such as chemotherapy. Genetic disorders such as Turner’s or Klinefelter syndrome, can also cause ovarian failure (Jones, 1994b). Various medical conditions affect the production of sperm in males. Azoospermia, oligospermia, chemotherapy, and vasectomies can result in a low sperm count or dysfunctional sperm (Prattke & Gass-Sternas, 1993). Jones (1994a) states, “others may wish to use donor gametes to eliminate the possibility of passing on a genetic risk, whether that risk be a single gene, multifactoral, or chromosomal disorder” (p. 493). Since the couple choosing gamete donation may be doing so to eliminate the transmission of genetic disorders and deadly infectious diseases, the gamete donors undergo a strict screening process for any genetic
or infectious diseases. "Currently, the AFS [American Fertility Society] guidelines provide recommendations for the selection and screening (genetic, medical, physical, laboratory) of gamete donors" (Jones, 1994a, p. 493).

The introduction of gamete donation increases the potential for the commercialization and exploitation of human products. Due to the increase in donor programs, "the ethics of selling sperm and ova will need to be addressed..." (Freda, 1994, p. 147). Society views the sale of human body parts and products as repulsive. Healy (1995) states, "the obvious concern that turning the body or its parts into commercial objects up for sale to the highest bidder sets the stage for grotesque human exploitation, particularly of poor, disadvantaged, or otherwise vulnerable people" (p. 108). Many people feel that infertility treatments have extended too far as researchers are now attempting to use the ova from aborted fetuses and dead women as a means for gamete donation (Dillner, 1994). There are concerns that this new source of ova may promote women to be paid to have abortions in order to retrieve ova (Dillner, 1994).

Braverman and English (1992) state, "donor gametes can come from a known donor or an anonymous donor" (p. 359). Couples may not perceive the donor’s anonymity as a major issue, but find it more important to have "...at least one-half of the genetic contribution to a child to be known to the parents" (Jones, 1994a, p. 493). However, the confidentiality of the anonymous donor is a major legal issue. To limit legal issues, the majority of anonymous donor programs minimize the amount of information about the donor to a basic medical history of the donor and his/her extended family (Braverman & English, 1992). While donation programs keep accurate records of donor/recipient matches, these records are to be kept confidential to both participants. If
couples and individuals choose to use donor gametes, many issues must be considered. These issues include “...secrecy (who will be told of the child’s origins), donor anonymity (couple will never know the other genetic parent of their child), cultural-social environment (is this acceptable within the circle of friends/family), and written consents (who is the legal parent of the child)” (Jones, 1994a, p. 494). A future ethical concern is whether children resulting from such matches should be allowed access to the information on their genetic parent as is presently being done with adopted children (Goode & Hahn, 1993).

Concerns regarding gamete donation have an impact on family relationships. There is always the possibility that the nonbiological parent will have difficulty accepting the child as his/her own. “The fact that one parent and not the other has a biological link with the child, it has been suggested, may lead to difficulties in the family relationships” (Daniels, Lewis, & Gillett, 1995, p. 1218). The legal guardianship of the child must also be considered and settled. Currently gamete donors do not retain any parental rights over any genetic offspring (Goode & Hahn, 1993). However, the genetic makeup of humans correlates with many aspects of our society and has many societal effects. Genes “…are seen as determinants of health and behavior, connections with our kin, our blood relatives, and links with past and future generations” (Snowdon, 1994, p. 77). Thus, many question who the true parents are and if a biological or societal foundation defines parenthood (Snowdon, 1994).

The Roman Catholic Church’s doctrine also expresses concerns regarding the use of donor gametes. These conflicts center around the principle that conception of any children should take place within the traditional marriage. “Within the Vatican’s
Instruction on Respect for Human Life in its origin, it is stated that conception must not take place outside marriage and should only occur through the marriage act” (Fryday, 1995, p. 32). The Congregation for the Doctrine of Faith (CDF) Instruction on Respect for Human Life states that “using sperm or ovum of a third party is not acceptable” (Ashley & O’Rourke, 1997, p. 245). The conception of a child through donor gametes offends the sanctity of traditional marriage (Fryday, 1995). Gamete donation is unacceptable as it would produce an illegitimate child resulting from an adulterous relationship (Haimes, 1993). The Roman Catholic Church’s doctrine also views conception of a child through external fertilization with a husband’s sperm as unacceptable because the semen is obtained through masturbation. Masturbation is considered a self-indulgent act that “…offends the dignity of man, woman, and child” (Fryday, 1995, p. 33).

Selective Termination

Humber and Almeder (1996) state, “one of the most morally vexing issues to have arisen in reproductive medicine recently is that of selective termination” (p. 93). Selective termination, also known as fetal reduction, is a procedure used to reduce the number of fetuses that a woman is carrying in utero (Raymond, 1993). The selection of fetuses to be terminated depends on a number of factors, including fetal size, cardiac activity, and implantation location. The selected fetuses are terminated by injecting a cardiotoxic drug, such as potassium chloride, into the fetus’s thoracic cavity. This causes the fetuses to go into cardiac asystole (Gennaro et al., 1992). Selective termination takes place nine to eleven weeks following conception (Braverman & English, 1992).
Selective termination is performed to reduce the risk of pre-term delivery of multiple fetuses (Blank & Merrick, 1995). Gennaro et al. (1992) state, “the increased mortality and morbidity associated with multiple pregnancies resulting from high technology infertility services has led to use of selective termination” (p. 192). Such pre-term delivery usually results in low birth weight and very low birth weight infants requiring extensive critical neonatal care primarily for damage to lungs and brain (Humber & Almeder, 1996). There are also maternal risks in carrying multiple fetuses, including pre-eclampsia, eclampsia, premature labor and delivery, and postpartal hemorrhage (Humber & Almeder, 1996). Thus, selective termination has been found to be effective in reducing health risks to both mother and surviving fetuses (Blank & Merrick, 1995).

Some disagree with the procedure of selective termination and say that it is comparable to abortion, which is an ethical dilemma in itself (Raymond, 1993). Clinicians have argued that selective termination cannot be viewed as abortion, since “the goal of abortion is to end a pregnancy...here the women desperately wants a child but is in a situation where she would not have any children without selective termination” (Raymond, 1993, p. 133). Thus, some view selective termination as permissible because it is performed to minimize the most amount of harm and achieve the maximal potential of good (Humber & Almeder, 1996). However, there are concerns that selective termination will be extended to in utero sex determination technique. In this situation, rather than using selective termination to reduce risks in multiple pregnancies, individuals could specify what sex fetus they desired and terminate the fetus of the undesired sex (Raymond, 1993).
The Roman Catholic doctrine strictly forbids selective termination in pregnancies, as killing of any kind is forbidden by the fifth commandment. All embryos and fetuses are regarded as human lives from the moment of conception. “All human life is sacred from the moment of conception because the creation of life is the action of God” (Fryday, 1995, p. 33).

Providing IVF for Non-traditional Couples and Individuals

Dilemmas involving the availability of IVF for non-traditional couples and individuals are up and coming (Blank & Merrick, 1995). The Human Fertilization and Embryology Act (HF&E Act) of 1990 regulates the use of infertility treatment by requiring that “…a woman shall not be provided with treatment services unless account has been taken of the welfare of any child who may be born as a result of the treatment (including the need of that for a father)…” (Gillon, 1994, p. 607). This provision can limit the availability of IVF for postmenopausal women, homosexual couples, and unmarried women (Curtin, 1994).

In recent years, postmenopausal women are seeking IVF treatment to have a child. This is related to the trend that women are delaying marriage and childbearing to advance careers. The delay in marriage and childbearing can lead to a reduction in reproduction ability, as fertility decreases with advancing age. Pregnancies in older women also involve many pregnancy related risks for both mother and child (Freda, 1994). IVF for older women also increases the use of donor ova (Jones, 1994b). Overall, many women have concerns for their resulting children. “Some women express concerns about their longevity and their ability to live long enough to see their children become adults” (Braverman & English, 1992, p. 359).
Provision of IVF services for homosexual couples and unmarried women is also highly debated. Devettere (1995) states, “this is especially true if there is no fertility problem, and the IVF is used simply because the woman does not have (or does not want) a partner to father her child” (p. 275). There are concerns that not having a father is not beneficial to anyone involved in the situation because the child is conceived, born, and raised outside a traditional family relationship. Due to these concerns, most clinics limit their practice to married heterosexuals (Devettere, 1995).

The Roman Catholic doctrine also disagrees with providing IVF to non-traditional couples and single women, as the “generation of the new person should only occur through an act of intercourse performed between husband and wife” (Ashley & O'Rourke, 1997, p. 245). The Church then strictly forbids IVF for homosexual couples and single women as procreation must take place within a sanctified marriage (Ashley & O'Rourke, 1997). The Church also forbids IVF for homosexuals as it views homosexuality as going against God’s plan and creation (O'Rourke & Boyle, 1993).

Financial Payment

Financial payment for IVF is an extensive stressor for infertile couples. In the early years of reproductive treatment, it was estimated that approximately $1 billion was put towards infertility treatment. In recent years, the monetary amount paid toward reproductive treatment has increased drastically due to technological advances and commercialization (Gennaro et al., 1992). In examining the financial implications that infertile couples face, it is evident that if a couple or individual is considering any infertility procedure or consultation, they must be financially prepared. Simply undergoing diagnostic testing and workups will require between $3,000 and $8,000
In Vitro Fertilization 42

(Rutter, 1996). For clients willing to undergo medical treatment, they can expect costs ranging from $1,000 to $16,000 per procedure (Gennaro et al., 1992). Hormonal supplements and fertility drug regimens average $2,500 per attempted cycle. These pharmacological regimens are simply a starting point for further procedures, such as IVF (Rutter, 1996).

IVF is among the most expensive infertility treatments ranging from $8,000 to $12,000 per cycle (Humber & Almeder, 1996). Costs increase if adjunct procedures, such as donor eggs or sperm, are incorporated (Rutter, 1996). “The total expenses they incur in a series of attempts at pregnancy, including travel, lodging, and loss of employment for the duration of the treatment may well be as high as $50,000” (Blank & Merrick, 1995, p. 89).

Gennaro et al. (1992) state that “the estimated high cost of high technology infertility services does not include the cost of complications that are often associated with these procedures” (p. 192). Various complications arise with artificially induced pregnancies. These complications include spontaneous abortions, ectopic pregnancies, multiple pregnancies, and an increased incidence of low birth weight or very low birth weight newborns (Blank & Merrick, 1995). With these complications, the amount of money put towards health care increases dramatically. The estimated costs for care of a low birth weight newborn may reach up to $500,000 or more along with a 30% to 40% re-hospitalization rate. In a study of families with children resulting from infertility treatments, the expenses including neonatal care ranged from $132,000 to $514,000 (Gennaro et al., 1992).
The financial burden placed on infertile couples undergoing IVF treatment is tremendous in itself alone. This burden becomes more extensive as the majority of health insurance plans do not provide coverage for infertility treatment (Rutter, 1996). Thus, the high cost of infertility workups and treatment limits the availability of IVF to only couples who have the financial opportunities. It is also highly susceptible to cost containment measures (Gennaro et al., 1992). IVF may undergo such cost containment measures as it is not “…understood to be part of the basic level of health care that should be provided for everyone” (Humber & Almeder, 1996, p. 84). Having a child is not essential to basic human needs and survival (Humber & Almeder, 1996).

The author could not find any literature commenting on the Roman Catholic perspective regarding the high costs of IVF treatment.

**Accurate Success Rates**

White (1992) reports that “lack of information and misleading advertising of success rates of new reproductive technologies may contribute to the further vulnerability of infertile couples and individuals” (p. 349). The inaccurate information provided by infertility clinics regarding the potential for achieving and maintaining a pregnancy to a live birth causes people to make inappropriate decisions regarding their infertility care (Gillon, 1994). This inaccurate information in turn leads to people spending tremendous amounts of money fruitlessly to have a child (Trevelyan, 1994).

Contributing to the provision of inaccurate information is the varying definitions of a successful IVF procedure, as well as the misleading success rate percentages (Steinbock, 1996). Clinics define a successful IVF attempt differently. In one clinic a success may be achieving a pregnancy, while in another it may be maintaining a
pregnancy to the live birth of a child (Steinbock, 1996). The published percentages of successful IVF attempts often mislead consumers. Steinbock (1996) reports “some clinics have misstated their success rates to consumers and been the subject of Federal Trade Commission charges of misleading advertising” (p. 172). In a government investigation and survey, investigators found that “…centers had published exaggerated numbers of live births by presenting cumulative figures for a group of related centers as being indicative of the experience of a new center” (White, 1992, p. 349).

As a means to regulate the fraudulent advertising, the Fertility Success Rate and Certification Act of 1992 required clinics to report their success rates annually. This act also introduces a standard definition of what a successful IVF procedure is (Steinbock, 1996). Such regulation is to ensure that clinics and infertility specialists are not making extensive profit at the financial and emotional expense of infertile consumers (Trevelyan, 1994).

The author could not find any literature commenting on the Roman Catholic perspective regarding the accuracy of consumer information on success rates.

Nursing Care

Schoener and Krysa (1996) state “nursing care has a major role in assisting couples through the infertility diagnosis and treatment regimen” (p. 167). The nursing role in IVF is multidimensional and has developed from the needs of IVF clients who require expert care and complex technology to bear children (James, 1992). The IVF nurse provides personal hands-on care to clients, including administering medications, drawing blood, performing physical and ultrasound examinations, and assisting physicians in various phases of the IVF procedures. The nurse also acts as a care
coordinator and assists clients in progressing through the treatment process (James, 1992). Providing education and information to infertile clients, family, friends, gamete donors, and society is critical in providing quality nursing care. Education includes information about the diagnosis, treatment options, procedures, finances, medications, and support groups. Acting as a counselor is vital in assisting clients to cope effectively with their situation. "The nurse is in a unique position to provide interventions to promote psychological health of infertile couples" (James, 1992, p. 331). The IVF nurse is also a researcher and collects data regarding treatment and outcomes in efforts to improve the IVF process, probability of outcomes, and infertility nursing care. Most importantly, the IVF nurse must act as a client advocate at all points of the infertility diagnosis, IVF care, and the outcomes (James, 1992).

**Definition of Client Advocacy**

Client advocacy is the nursing practice of extending support to a client to promote his/her own well-being and satisfaction, as it is understood by that specific client. Advocacy is much more than simply protecting client rights. It involves the nurse and client entering into an intimate, interpersonal relationship as a means to provide meaningful nursing care. "It is the interaction of nurse and [client] in such a way that it allows the person to understand the unique meaning which the experience of health, illness, suffering, or dying is to have for that individual" (Gaylord & Grace, 1995, p. 13). Florence Nightingale defined client advocacy as 'putting the [client] in the best condition', meaning the best condition as needed and wanted by the individual client. The vital aspect of client advocacy is the relationship and trust that is built between the nurse and the client. Without a trusting relationship, the nurse cannot investigate what
the client truly wants and needs. Thus, the nurse is not able to support and advocate for the client effectively (Gaylord & Grace, 1995). Without support and advocacy the clients will not be strengthened and be able to act on their own (Liaschenko, 1995). The vital steps to supporting, strengthening, and advocating for clients are values clarification, and informing and supporting the client’s decisions (Liaschenko, 1995).

**Values Clarification**

The first step in client advocacy is for the nurse to clarify his/her personal perception, feelings and values regarding each individual situation (Brink, 1995). Values clarification is important to ensure that the client’s needs are the focus of the nursing care at all times (Sundeen, Stuart, Rankin, & Cohen, 1994). If the nurse does not clarify his/her personal feelings and values, the nursing care will not be objective or therapeutic for the client. The nurse may have personal feelings and values that conflict with that of the client; and if not honest about these feelings, the nurse may extend these emotions to the client; thus, the care will not be beneficial (Rafeal, 1995).

“Understanding of the right of the client to have an opposing approach from that of the nurse assists in the implementation of interventions that are therapeutic for the client and not coercive” (McFadden, 1996, p. 511).

Once the nurse has clarified personal standpoints, he/she must be able to make an objective assessment of the client’s values and perceptions of the situation. Some clients feel pressured by the moral and societal values that conflict with IVF or with the fear about what the outcome will be (McFadden, 1996). These conflicts and fears must be clarified so that the nurse and IVF staff can effectively care for the client as the client’s values are the deciding factor in what will be done in their health care (Rafeal, 1995).
Informing and Supporting

When the nurse acts as a client advocate, the central belief is that the client has the right to autonomous self-determination. In order for the clients to determine what is best for their life and situation, they must have an understanding of the treatment options and what will occur during IVF. Thus, "informing and supporting are the nursing actions that are central to the advocate role" (Sundeen et al., 1994, p. 329). Through informing clients, clients have more control and independence and the client's ability to deal with infertility and IVF is increased (Rushton, 1995). Gaylord and Grace (1995) state "advocacy is the act of informing and supporting a person so that he can make the best decision for himself" (p. 13).

Informing clients requires effective communication and listening skills. Through the use of effective communication, nurses assess the client's knowledge base and what needs to be expanded on. The nurse clarifies any misunderstandings or misperceptions along with increasing the client's knowledge. This information helps the client make appropriate decisions and increase effective coping (Sundeen et al., 1994). Once the client is informed and competent at making an informed decision, the nurse must be supportive of that decision. This support increases the trust that is developing between the nurse and client, along with helping the client cope with their infertility and IVF process (Gaylord & Grace, 1995). "When nurses act for a [client] an interesting phenomenon occurs: The nurse become the instrument or agent who acts to achieve some end supportive of the [client's] sense of having a life" (Liaschenko, 1995, p. 3).
Personal Interviews

Purpose

The purpose of the personal interviews with registered nurses or advanced practice nurses who have worked with IVF clients is to investigate how nurses deal with ethical dilemmas and conflicts when advocating in actual experiences. The process that nurses use in dealing with the ethical decisions in IVF is not clearly defined in the literature. The process and outcomes are very different in hypothetical and actual client situations. Nurses may either use Kohlberg's justice perspective or Gilligan's care perspective to deal with the ethical dilemmas. An examination of nurses' experiences in working with and advocating for IVF clients will be useful in studying the ethical decision making process of nurses.

Design

The author conducted a qualitative interview with registered nurses and advanced practice nurses who specialize in infertility and IVF. Six nurses were initially identified through professional references and an investigation by the author. Potential subjects were contacted by telephone, and interview arrangements were made with four of the subjects (Appendix A). The informants were asked to sign an informed consent form explaining the purpose of the interview, and explaining that their rights and those of their clients would be strictly maintained (Appendix B). The interview consisted of eight open-ended questions focusing on the informants' experiences with IVF clients and treatment (Appendix C). Interviews were conducted in the privacy of the nurses' offices. The responses to the questions were audiotaped and dictated in to a narrative form.
Method

Interview questions were formulated following a literature review indicating that nurses may experience conflicts with decisions made by IVF clients regarding their treatment. At times, nurses have personal and professional conflicts with clients' decisions, and it is not always possible to follow a specific moral development theory in making personal and professional decisions. McFadden (1996) states "because reproductive health decisions often are personal, value laden, cultural, and sometimes controversial, application of stages of moral development is not always feasible" (p. 511). The questions explored topics such as how clients arrive at their decision, why another 'choice' may be better, how the nurse dealt with conflicting emotions and values, and whether the nurse was able to continue working with and advocating for the clients (Rushton, 1995). Literature reports that nurses have various options and decisions regarding providing care to clients. Some nurses are not able to move past the conflict and must decline to work with the specific client. Other nurses are able to continue working with the client, supporting them emotionally and psychosocially, regardless of their personal opinion. The interview also investigated the freedom of nurses to advocate effectively for their clients (Rushton, 1995).

Analysis of Data

Data was classified into six content areas: 1) How clients make decisions regarding treatment, 2) Client experiences and conflicts with the nurse’s personal and professional values, 3) Professional options and decisions in providing care for and advocating for the clients, 4) Religious concerns, 5) Major Themes, and 6) Additional Information.
How Clients Make Decisions Regarding Treatment.

The common theme identified throughout informants’ interviews is that by the time infertile individuals decide to undergo IVF, they make their own decision. Many IVF clients have researched IVF personally and are well educated on the process prior to seeking IVF. The majority of clients have usually exhausted all other reproductive treatments at this point and IVF is their last hope to bear a child. While physicians and other healthcare professionals provide information regarding IVF clinics and physical procedures, the decision to undergo IVF is ultimately the clients’.

Client Experiences & Conflicts with the Nurse’s Personal & Professional Values.

The informants did report situations in which they had values and emotions that conflicted with the client’s decision or situation. These situations included concerns regarding the cryopreservation of embryos, the amount of time and energy spent undergoing IVF, providing care for non-traditional couples and single women, implanting an inappropriate number of embryos, and whether having a child through IVF would be beneficial for both parents and the resulting child. While some informants had had conflicting emotions and values, all informants concurred that the client’s decision was the optimal decision for that individual and his/her life, and was to be the guide for reproductive treatment. One informant stated “it’s the client’s decision that is best for them and their situation”.

The informants reported that when dealing with conflicts, they continued or would continue to work with the clients, support them, and advocate for them. A common theme was that clients really needed the nurse’s emotional and psychological support when undergoing IVF due to the great deal of psychological and emotional stress
and burden. However, the interviews also indicated that if the informants did encounter a situation that conflicted with their personal or professional values, they would feel free to decline working with the particular client. One informant stated “I haven’t had to do so in my career as of now, but I do feel I could decline if I absolutely couldn’t work with a client due to personal feelings”. An informant reported that the practice that she was employed at had set guidelines that the providers would not provide IVF treatment to single women or non-traditional couples. Thus, this was a situation where the informant had had to decline working with clients due to the conflicting values and feelings of the entire IVF clinic.

**Professional Options & Decisions in Advocating for Clients.**

The informants reported that they had the freedom to advocate for clients effectively in their present situations. They also reported that at the point that clients enter the IVF process, they are well informed and tell the providers what they want. In working with and advocating for IVF clients, informants reported that they were able to view each client’s situation and IVF process as individual and unique. Some informants attributed this to working with a small number of clients compared to larger IVF clinics and facilities. Informants reported that in working with clients, they form deep, intimate relationships with the clients and this adds to the uniqueness of each client.

**Religious Concerns.**

While the author did not question the informants on their religious affiliation or concerns, the informants provided examples of situations in which religious concerns of the client had affected the IVF decision. For example, one informant described a situation where the client was investigating IVF and upon their investigation discovered
that IVF conflicted with their religious beliefs. This client declined IVF because of their religious concerns.

Another situation involved a client who upon becoming pregnant through IVF discovered that IVF was not accepted by their religion. Already in a conflicting situation, the client was upset by this, but continued the pregnancy and delivered the child.

**Major Themes.**

The author identified three major recurring themes throughout the interviews: 1) Clients were very knowledgeable of the IVF process and potential consequences, 2) Nurses were very supportive of the client’s needs and decisions, and 3) Working with IVF clients can be emotionally and psychologically exhausting.

The first theme is that IVF clients are very knowledgeable of the IVF process and potential consequences. The informants concurred that at the point that clients enter the IVF process, they have exhausted all other reproductive options. Clients have then researched the causes for their infertility and what IVF entails. Thus, clients make their decisions based on their needs, wishes, and knowledge. The second theme is that the informants were all very supportive of their clients’ decisions and needs. All informants concurred that only the client’s decision guides the IVF care, not what the health professionals think should happen. The third theme was that working with IVF clients can be emotionally and psychologically exhausting at times. Informants reported that it is very difficult to not get too caught up in the client’s situation.
Additional Information.

Additional information provided by the informants included common concerns regarding cryopreservation, implanting a large number of fertilized embryos, the amount of time, money, and energy invested in the IVF process, and providing care to single women and non-traditional couples. The informants reported that couples undergoing IVF invest a tremendous amount of emotions, hopes, and energy in trying to become pregnant and bear a child. It was this issue that made their work difficult at times because the providers themselves want a successful IVF attempt for the clients' sake. The informants also all concurred that counseling for IVF clients is essential. The counseling topics should include emotional and psychological stress and the complicated medical and ethical decisions they may have to make in the future.

Discussion

Use of Fertility Drugs

While fertility drugs such as Humegon (Hurley, 1995), Clomid, and Pergonal are used to induce the release of multiple eggs, there are many concerns regarding potential adverse effects (Humber & Almeder, 1996). These adverse effects, such as ovarian hyperstimulation, can be acute and life-threatening. There are also possible long-term effects, such as the future development of breast and ovarian cancer (Healy, 1995). These powerful drugs could also have life-threatening effects on the children born with the use of fertility drugs, although there is no evidence at the present time (Raymond, 1993).

Although the informants were not questioned regarding their opinions on the harmful effects of fertility drugs, one informant expressed concern regarding the misuse
of fertility drugs and monitoring in the recent birth of septuplets conceived with the aid of fertility drugs. The informant was concerned that while the septuplets were born and treated with positive outcomes, this is a rare and potentially threatening occurrence to both the mother and children.

**Cryopreservation of Embryos**

Cryopreservation of embryos creates many ethical dilemmas for clients and health professionals. When cryopreserving embryos, even if the embryos are not deemed human beings, they still have the potential for human life and must be treated with special dignity (Monagle & Thomasma, 1994). Thus, disposal of preserved embryos is a debated topic (Jones, 1994a). Genetic research regarding the viability and status of the embryos is also complex, as the disposal of embryos of an unwanted sex or with genetic abnormalities is the disposal of a potential human being (Gillon, 1994).

Some informants expressed concerns regarding the cryopreservation of embryos because of the potential for human life. One informant explained that the IVF clinic to which the clients were referred had an extensive procedure that required clients to truly identify what they had decided to do and if they had any concerns at all. If concerns are voiced, the IVF procedure is postponed until all potential conflicts are discussed and resolved.

**Use of Gamete Donation**

Gamete donation is used for clients who are unable to produce the gametes necessary to conceive a child (Jones, 1994b). Concerns arise in gamete donation because there is a high potential for the commercialization and exploitation of human products (Freda, 1994). Confidentiality issues regarding the donor are also complex. A
dilemma is created when resulting children want to access the information regarding their genetic parent (Goode & Hahn, 1993). The Roman Catholic doctrine expresses concerns because the belief is that the conception of a child should take place with the traditional marriage. The conception of a child with gamete donation offends the sanctity of marriage and results in an illegitimate child in the Roman Catholic perspective (Haimes, 1993).

The informants did not provide extensive information regarding the use of donor gametes in IVF. One informant did describe a situation where a client with a genetic disease had attempted to become pregnant with the use of donor gametes. However, this client did not become pregnant through IVF and the informant was not concerned that donor gametes were being utilized.

Selective Termination

Humber and Almeder (1996) state “one of the most morally vexing issues to have arisen in reproductive medicine is that of selective termination” (p. 93). While selective termination is performed to reduce the risks that develop in a multi-fetal pregnancy, some have compared selective termination to abortion, which is an ethical dilemma in itself (Raymond, 1993). The debate centers around the use of abortion to end a pregnancy, whereas selective termination is viewed by some to be a beneficial act performed to minimize harm and achieve the maximal potential of good (Humber & Almeder, 1996).

Some informants had difficulty commenting on the issue of selective termination because they had never dealt with such a situation in their practice. However, one informant felt that she would be unable to participate in a selective termination. Another
informant viewed selective termination as a beneficial act because it reduced the risks of multi-fetal pregnancies. None of the informants had participated in a selective termination in their IVF practice.

Providing IVF for Non-traditional Couples and Individuals

Concerns regarding IVF in situations where the client is non-traditional or a single woman center around the idea that not having a parent of each sex may be detrimental to the resulting child (Devettere, 1995). The Human Fertilization and Embryology Act of 1990 regulates the use of infertility treatment by requiring that “...a woman shall not be provided with treatment services unless account has been taken of the welfare of any child who may be born as a result of the treatment (including the need of that for a father)...” (Gillon, 1994, p. 607). This limits the availability of IVF for postmenopausal women, homosexual couples, and unmarried women (Curtin, 1994).

Some informants did report that the IVF practice in which they worked did limit IVF to married, heterosexual couples, while others did not limit the IVF services. When some clinics had limitations on the IVF services, the informants made referrals to other clinics and professionals that did provide IVF to non-traditional couples and individuals.

Financial Payment

The amount of money paid for reproductive treatment has increased drastically in recent years due to the increasing technology and commercialization (Gennaro et al., 1992). IVF is among the most expensive of infertility treatments and ranges from $8,000 to $12,000 per attempted cycle (Humber & Almeder, 1996). Costs then increase if adjunct procedures, such as donor eggs or sperm, are involved (Rutter, 1996). These costs do not include the potential health complications that can develop in either mother
or child (Blank & Merrick, 1995). Thus, the financial burden placed on infertile couples undergoing IVF treatment is tremendous. However, the dilemma arises because it is questionable if having children is essential to the basic human needs and survival (Humber & Almeder, 1996).

Only one informant expressed concern regarding the high cost of undergoing IVF treatment.

**Accurate Success Rates**

Providing inaccurate information to clients investigating IVF may lead them to make inappropriate decisions regarding the infertility care. They may also spend a great deal of money for a slim chance at conceiving and bearing a child. (Trevelyan, 1994). Providing inaccurate information is misleading and fraudulent. IVF consumer fraud has led to the regulation of IVF clinics and specialists. This regulation defines what a successful IVF attempt is and is an attempt to ensure that clinics and specialists are not making fraudulent profit at the financial and psychological expense of infertile consumers (Trevelyan, 1994).

While the informants were not questioned regarding the information given about success rates, the author understands that the informants deal with the IVF procedure in a preparation situation and then refer clients to larger IVF clinics out of state. Thus, the informants may not participate in the actual IVF procedure that can present such high costs.

**Roman Catholic Perspectives**

IVF creates major concerns regarding the Roman Catholic doctrine. The Roman Catholic doctrine defines marriage and the creation of a family as the fulfillment of
human sexuality. Producing children is a procreative act that must not be separated from marriage by a deliberate act (Fryday, 1995). Thus, IVF is considered to be a deliberate act that is in conflict with the natural and moral order of God (Ashley & O’Rourke, 1997). The Roman Catholic doctrine’s belief is also that the procreation of children must occur within a sanctified marriage. Thus, providing IVF to non-traditional couples and single women goes against the moral beliefs of Roman Catholics (Ashley & O’Rourke, 1997).

While the informants’ personal religious affiliation and beliefs were not investigated, the author identifies that a nurse’s religion and beliefs may contradict with IVF. If this occurs, the nurse must undergo values clarification to clarify feelings about the situation. If working in an IVF facility or clinic would threaten the nurse’s personal integrity, it may be necessary to decline the work.

**Advocating for Clients**

The literature recommends that nurses separate their interpretation of the situation from the client’s interpretation (McFadden, 1996). If nurses do not clarify how they feel, they threaten their personal and professional integrity by participating in and condoning decisions made. Rushton (1995) reported that “participating in treatment that violated important professional values and standards threatened the nurses’ integrity and their character as individuals and professionals” (p. 368). While nurses may be able to work with and support clients for a temporary period, their participation may undermine how they feel about themselves later on during the process (Rushton, 1995). “For nurses, preserving integrity is essential for maintaining a coherent professional identity that is
based on compassion, caring, and trust and for preserving their self-esteem’’ (Rushton, 1995, p. 368).

In analyzing the information provided in the personal interviews, the author clearly saw that nurses working in IVF use the care perspective in dealing with clients. The informants were very supportive of their clients’ needs and wishes, and were able to put their own personal opinions and feelings aside for the client. The informants emphasized that care was guided by the client’s decisions rather than by what the professionals felt or thought was best. While some informants may not have agreed with what clients had chosen, they were able to understand the clients’ perspectives and decisions. Some nurses do not undergo a process of values clarification, but push aside conflicting values and feelings in order to work with clients. They may not truly consider how they feel about the clients’ choices.

When nurses do not fully agree with the client’s decisions, they may be defrauding the trusting relationship that is vital in IVF nursing care. In violating personal and professional values, they also violate the compassion, caring, and trust that is the core of nursing commitment. “For nurses to see themselves as trustworthy, they must believe that what they are doing is consistent with their personal and professional standards and moral guidelines” (Rushton, 1995, p. 368). Thus, if the trust of the relationship is compromised, the clients are not going to be empowered and supported in the IVF process, which impacts their lives forever. The informants did not offer information regarding their feeling on decreasing their integrity.
Limitations of the Study

The limitations of this study have had a significant impact on the analysis of the personal interviews. In simply considering the region in which the informants were working, one must view the rural state and setting as a limitation. Montana is a state characterized by a low population density, low diversity, and many rural areas. Not only is Montana considered rural in regard to population and race, but it also reflects a rural culture and has a rural value system. Bigbee (1993) states “the rural value system reflects rural culture. Rural residents tend to be more morally and politically conservative, traditionalist, and work-oriented” (p. 133). Due to IVF’s controversial nature and issues, many people in Montana may have conservative conflicts with its procedure and ethical implications. Also, due to the rural conservative culture, few clients are homosexual. Clinics offering IVF are able then to set pre-admission standards that screen for homosexual or other non-traditional couples and individuals without eliminating a large portion of the population.

Another limitation in this qualitative study was that due to the lack of the advanced technology necessary for IVF, Montana has no IVF clinics that actually do egg retrieval, fertilization, transplant, selective termination, and cryopreservation. While clinics in Montana initiate the IVF drug regimen and monitor the development of the eggs, IVF clients are transferred out of state to a larger IVF clinic for direct IVF care. Thus, many clinicians and professionals in this state have not directly experienced several of the ethical issues discussed in the literature review.
Future Research

Upon analysis of the literature, personal interviews, and limitations of this study, the author has many suggestions for future research studies. First and foremost, in future studies, researchers should conduct an extensive demographic study and survey of the region in which they will be investigating, as well as IVF clients and clinicians there. The author suggests that researchers include not only professionals that work in rural areas or IVF clinics, but to also include clinicians who work in a variety of IVF clinics. This will ensure that the researchers obtain a comprehensive view of professionals’ experiences and viewpoints regarding IVF. Researchers would also want to include an investigation of the informants’ background in ethical reasoning and decisions making, along with their religious values.

Conclusion

In conclusion, the process of IVF is physically, emotionally, and financially exhausting to individuals and couples who choose to attempt bearing a biological child. However, the IVF process and technology are permanent and lasting aspects of our society. “Technology is an inevitable, permanent, and desirable part of our practice” (Drought & Liaschenko, 1995, p. 303). Technology used in IVF has created many ethical dilemmas that clients, nurses, and health professionals must deal with. “There is a tension between nursing’s values and commitment to individual clients and the technologic imperative” (Drought & Liaschenko, 1995, p. 303). It is important then that nurses undergo a process of ethical decision-making that includes values clarification to interpret how they feel about clients’ decisions and their own ability to care for these clients.
In conducting the literature review and personal interviews, the author has learned a tremendous amount about dealing with IVF and ethical dilemmas. The author would possibly have difficulty working with IVF clients experiencing dilemmas. This is due to the author’s religious background and Roman Catholic beliefs. The author is able to understand an IVF client’s desire to have a biological child. However, it would be difficult to push aside personal conflicts. If the author were to continue working with the client, these conflicts could impact the nursing care. Thus, the author strongly recommends that before nurses work with clients and issues that involve several ethical dilemmas or controversies, they must go through the process of values clarification. If nurses have conflicting viewpoints, continuing to work in the situation may decrease their personal and professional integrity. They may not be able to provide the standard of excellent, non-judgmental nursing care to clients.
References


Dillner, L. (1994). Rejected concept...ban on the human fertilization and embryology authority on the implantation of eggs from aborted fetuses. *Nursing Times*, 90(31), 16.


Cambridge: MIT Press.


Appendix A

Interview Cover Letter

1714 Euclid Avenue
Helena, MT  59601
(406) 442-8159
February 9, 1998

Jane Doe
1900 U.S. Lane
Town, Montana

Ms. Jane Doe,

Thank you for your cooperation and time in granting me an interview regarding my honors thesis for the Carroll College Nursing Department. As was discussed during previous telephone calls, my honors thesis focuses on the role of the nurse as a client advocate in the ethical dilemmas of in vitro fertilization. The interview that we scheduled for [day], [date], at [time] will be focusing on your experiences as a client advocate. I am enclosing a summary of my thesis and an informed consent form for the interview. If you have any questions or concerns, please telephone myself at (406) 442-8159, or Tonia Marine, RN, MN, my honors thesis director, at (406) 447-5490. I look forward to our meeting.

Sincerely yours,

Kelli L. Christiaens
Carroll College Nursing Student
Appendix B

Informed Consent

I, ____________________________ , agree to be interviewed by Kelli L. Christiaens, a student nurse at Carroll College, who is completing an honors thesis regarding the ethical dilemmas of in vitro fertilization. I agree to serve as an informant for my opinions and experiences in providing nursing care to infertile couples and individuals as a registered nurse or advanced practice nurse and my feelings about ethical dilemmas that may arise with infertility treatments.

I understand that the goals of this interview are to understand the feelings related to ethical dilemmas that registered or advanced practice nurses may experience in providing nursing care to those undergoing in vitro fertilization, and opinions about the ethical dilemmas that arise in infertility treatments. My participation involves responding verbally to questions regarding specific ethical dilemmas that may be uncomfortable and how I feel it is best to provide nursing care. I will not provide any individual information regarding current or prior in vitro fertilization clients that I am working with or have worked with in the past.

I understand that this interview will be conducted at a time that is convenient for me and in a private location as a means to decrease the potential of any unrelated individuals hearing any information. The interview will last approximately 1 to 2 hours. My signature grants consent for audiotaping of the interview. I understand that Kelli L. Christiaens may contact me for further information in the future.

I have been informed that the interview is entirely voluntary, and then even after the interview begins I can refuse to answer any specific questions or decide to terminate the interview at any point. I have been informed that my answers to questions will not be given to anyone else and no reports of this interview will identify me, my clients, or my place of employment in any manner.

This interview and thesis will help to develop a better understanding of the experiences of infertility, in vitro fertilization, and the ethical dilemmas that may arise with infertility treatments. I will receive no direct benefit as a result of my participation.
I understand that the results and completed document of this thesis will be in a collection held at the Carroll College Library or given to me upon request.

I understand that Kelli L. Christiaens is the person to contact if I have any questions or concerns about the interview or my rights as an informant. Kelli L. Christiaens can be reached by telephone at (406) 442-8159 or by writing to Carroll College Nursing Department, North Benton Avenue, Helena, MT, 59625. Tonia Marine, a Carroll College nursing professor and Kelli’s Honors thesis director, can also be contacted regarding any questions or concerns at (406) 447-5490 or by writing to the Carroll College Nursing Department.

________________________________________
Respondent’s Signature  Date

________________________________________
Interviewer’s Signature  Date
Appendix C

Thesis Interview Questions:

1. How do you think that IVF clients arrive at their decision on treatment option?
   Doctor's advice, Information given, Personal values & choice

2. In your experiences as a registered nurse or advanced practice nurse, have you ever had feelings that conflicted with the client's decision in treatment? Describe.

3. Why did you feel that your "choice" would have been better?

4. How did you deal with this conflict?

5. Were you able to support the client(s) emotionally and psychosocially in their decision?

6. Were you able to decline to work with the client if the treatment went against your personal feelings and values?

7. Do you feel that you have the freedom to advocate for your clients effectively?

8. Is it difficult to view each client's situation as unique and individual to that person's life?