

Issues related to infertility in Africa: An ethical scan

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Abstract

For many individuals, having offspring is a definitive dream. Shockingly, however, for a few, the problem of infertility can be to a great degree disastrous and annihilating to their tentative dreams. Infertility especially within African context is a hot matter issue and quite plaguing to social relations and marital institution. In Sub-Saharan Africa for instance, high esteem is set on children and the individuals who infertile extraordinarily stigmatized. This has lead many in need of children to resort to some unethical, degrading things and approaches not minding weather it's natural or unnatural against all odds. There have seems to be lot embracement of science and technology as regards this issue which has raised much ethical questions. It is the concern of this paper to critically x-ray bioethical issues such as artificial womb, artificial insemination, surrogacy, sperm and eggs donation which are issues caused by infertility.

Keywords: Infertility, Biotechnology, Artificial insemination, surrogacy.

1. Introduction

In our part of the world (Nigeria), the term marriage is almost synonymous with procreation, such that once two persons of opposite sex come together in matrimony, what should readily follow is childbirth. And after two to three years if nothing happens, there will be serious agitation and names calling which includes barrenness, infertility and witchcraft on mostly female spouse. To evade this derogatory and disdainful treatment meted to couples without children has led biotechnology researchers to trying their minds on new things in attempt to solving the problem of infertility, bareness and childlessness. Artificial womb and the practice of artificial insemination which is now rampant in many clinics and hospital in countries like United States of America, Germany, New Zealand, Japan etc, are results. Biotechnology researchers are trying hard to remedy the problems of infertility and childlessness among couple. Although, this is heavy criticized on many grounds such as depersonalizing reproduction by separating genetic, gestation, and social parenthood, yet the problem of surrogacy is still on the increase in our today's world. It has further become business in that sperm and eggs are no more being donated freely for humanitarian sake but sold and

bought for cash [1]. It is the concern of this paper to critically x-ray bioethical issues such as artificial womb, artificial insemination, surrogacy, and sperm and eggs donation.

2. The commonness of infertility

Infertility is characterized as the insufficiency to conceive pregnancy after a sensible time of sex with no contraceptive measures taken [2]. The terms sterility and Infertility are once in a while utilized equally and sometimes defined distinctively. In the Spanish writing, the meaning of the word sterility is the problem to realize pregnancy, while the term infertility is utilized when pregnancy develops yet is stalled eventually; thus, the term is utilized as an equivalent word of intermittent miscarriage [3]. Despite what might be expected, in the English writing the term infertile alludes to a couple that fails in accomplishing pregnancy, either as a result of the difficulty to conclude pregnant through natural means (sterility) or at whatever point the possible outcomes exist however pregnancy does not happen (sub fertility) or if pregnancy develops but rather does not prompt a live infant [4]. Conversely, the fertile populace is characterized as the individuals who become pregnant after some sensible time

of standard sex [5]. Also, the idea of "sensible time" is easy to refute; the World Health Organization and additionally the European Society of Human Reproduction and Embryology in their proposals specify a 2 year least due date for developing pregnancy [6]. In the event that pregnancy does not happen after that time, the couple is thought to be infertile. Infertility is a noteworthy issue universally affecting 8-12% couples. According to Rutstein and Shah, infertility in developing nation's increases exponentially from around 5% at ages 20-24 to around 62% between the ages of 45-49 years [7]. In Sub-Saharan Africa, infertility rates are as high as 30%. This high infertility rate is because of disease, either from sexually transmitted disease, after labor or abortion [8]. In African social orders human reproduction is profoundly esteemed and powerlessness to conceive is viewed as an individual catastrophe and revile for couples, affecting the whole family and society [9].

Furthermore, childless women are oftentimes slandered bringing about separation, disregard, aggressive behavior at home and polygamy. The pattern of infertility also fluctuates from populace to populace and is impacted by social contrasts, level of sexual promiscuity, predominance of sexually transmitted issues and reproductive conduct. It is additionally proven that a lady with high sexual history, various sexual associations, and sexual start before adolescence has a higher risk for infertility. The reasons for infertility are broadly arranged in four noteworthy classes: the female factor; the male factor; joined components; and unexplained infertility [3].

It is hard to allocate the correct rate to these classifications; in any case, it is by and large revealed that in roughly 35% of cases, infertility is essentially because of a female factor, 30% to a male factor, 20% affecting the two accomplices, and 15% of cases on unexplained infertility [3]. A WHO investigation of 3800 infertile couples in developing nations found female factor infertility to be because of the accompanying; hyperprolactinemia 7% pelvic bonds 12%, Ovulatory issue 25%, endometriosis 15%, tubal blockage 11%, other tubal abnormality 11% [3]. Male factor infertility can be caused by various variables which can be sorted into pretesticular, testicular and post-testicular [3].

Pre-testicular elements incorporates; Firstly, hypogonadotropic hypogonadism which might be because of lifted prolactin, medicines, illegal medications like cannabis, pituitary damage and Kallmann syndrome; Secondly, hypergonadotropic hypogonadism whose most basic reason incorporate Klinefelters disorder, which modify spermatogenesis; and in conclusion, other hereditary issue of gonadotropin emission like multiorgan hereditary disorders, for example, the Laurence-Moon-Biedl disorder, Prader-Willi disorder, Lowe oculo-cerebral disorder, and familial cerebellar ataxia [3].

3. Artificial womb or uterus

An artificial womb or uterus is a mechanism used to grow an embryo outside the body of a female organism or woman [2]. It is some cases serves as a replacement organ that could be used to assist women with damaged or diseased womb to conceive. Since the uterus is grown from the woman's own endometrial cells (the mucous membrane living becomes aggressively thicker and more glandular with increased blood supply in the latter part of the menstrual cycle), is left with minimal chances of organ rejection. Hence, it enhances the endometrial of implantation. And in an instance of pregnancy, the endometrium (the membrane living the womb) becomes decidual, which shed after birth [10].

Through researchers into this artificial womb, have given many benefits of advantages to this advancement to include, benefits to the foetus and the mother; reduction on the abortion and the cloning but it leaves us with grim bioethical consequences, nor theories of ethics or even principles of ethics. We are rather interested with ethical concern as they deal with lives of people. That is the concern of biomedical and clinical ethics, which involves explaining who benefits, and what is benefited from artificial womb. Yet another seemingly plausible argument in favour of artificial womb has it that it will be safer than the mother's womb because the various risks of disease, miscarriages, drugs, problem, pollutants, genetic disorders, and mal-nutrition would be completely eradicated. The above argument failed to answer questions bothering on the baby's environment which is supposed to be natural, to help the baby relates with the mother's heartbeat which will not be in existence or equivalent created anywhere. The consequence is that artificial womb baby will be completely detached from the natural bond that exists between mother and child; it will be a machine baby and will suffer from social and psychological disadvantages.

The Christian point of view holds the womb as a place of creation and procreation. 'My substance was not hid from thee, when I was made in secret, and curiously wrought in the lowest parts of the earth' (Psalm 139; 15 KJV). It follows that foetus produced in artificial womb will have negation of God's original intention of women bearing children. Some scholars and researchers into artificial womb were of the view that these advances will help mothers with damaged womb with a better option of going straight to womb bank and produce their babies rather than hiring a surrogate mother. Again, it will also reduce the risk of miscarriages and premature births. Also, the stress of protracted periods of pregnancy, enduring the pain, sickness, awful pain of contracting etc will all have been avoided. Again, argument in favor of artificial womb has it that the rampage of abortion would be brought to its lowest ebb if not completely eliminated.

Given that women will be free to have children through artificial womb. Attacking it straight is the question whether all mothers will be able to afford it in view of its cost implication. Also, it could be argued that babies produced outside the natural wombs will lack mother child attachment with the consequence of being more or less like commodities to their 'mother' where the scripture Isaiah 49: 15 applies with the tendency that such mother will forget even to give suck to the children since the bond that should have exist between mother and child is lacking. Pro-artificial researchers and some bioethicist did argue in favor of artificial womb that it will help reduce the tendency of cloning [11].

As also enable gays to have their own children without the natural resort. But come to think of it from religious perspective, gay is a sin against God, if anyone desires to procreate, then it must be done through marriages between man and woman for that is God's original intention of procreation. Nature in its unadulterated state abhors the secular humanist view that seems to entrench man as lord of himself and so, that, he can do whatever he likes [12]. From Christian point of view man is accountable to God his creator. And to procreate using artificial methods is wrong and may negate man's claim to rationality and morality.

4. Artificial insemination

Artificial insemination can be either homologous (utilizing sperm from a lady's spouse) or heterologous (utilizing sperm from a man she isn't wedded to) [13]. The two types of artificial insemination raise huge good concerns. Nineteenth century specialist J. Marion Sims was the principal individual who utilized a deliberate way to deal with human artificial insemination [14]. Sims was the first to devise and utilize the main vaginal speculum in his 55 artificial-insemination techniques in six distinct ladies at the Women's Hospital, which he established. The system was able to bring about just one pregnancy and finished in a premature delivery. Sims' strategies would have been viable if the ladies' ovulation cycles were considered. Primarily, a healthy sperm for use may be gotten either from a known or anonymous donor, through masturbation or an electric stimulator.

In this, the semen could be collected with the help of a special condom during the period of stimulation Prior to insemination, the woman's menstrual cycle during this period is carefully observed either by tracking basal body temperature and changes in vaginal mucous of through the use of ovulation kits, ultrasounds or blood tests [15].

The sperm collected according to Robert Adams using intrauterine insemination, must be washed in order to increase the chances of fertilization, and then placed directly from the vagina into the woman's uterus through a catheter tube with the consequence that the woman will

conceive. Realizing pregnancy by presenting a cannula through the regenerative tract of a lady and infusing sperm into her body raises worries about reducing her to a kind of medium for the purposes of obtaining a child. These activities neglect to regard the most individual and close parts of a lady's social gentility and her sexuality. She winds up being dealt with or regarding herself as a "object" for the quest for pursuit.

A man additionally violates his sexuality, as his association winds up lessened to "producing a sample," typically by masturbation, which professionals then use to impregnate his wife or another lady. Additionally, any child born in this way is conceivably regarded as a question or an "project to be realized," as opposed to as a blessing emerging from their union and intimacy.

The center issue remains that regardless of whether sperm were gathered without masturbation, the resulting ventures of bringing a sample into a lady's reproductive tract, through a cannula or different means, would constantly include a substitution or replacement of the marital act, which would not be ethically satisfactory.

Daniel Callahan, in his 1992 article "*Bioethics and Fatherhood*" contends that since the start of artificial insemination, there has been a pattern to ignore the male and his anonymous gift of sperm [16]. His contention is that this man, the sperm contributor, is biologically in charge of the recently conceived child and its life from that point. He bases his contention around the duty of the individual, the technology that enables men to be ignored, and the rights movement that has lessened the obligation of the man in parenthood. Callahan starts his contention with the dialog of being a father biologically and ethically. He relates these two terms by saying, "People bear an ethical duty regarding those deliberate demonstrations that affect the lives of others; they are ethically responsible for those demonstrations" [16].

Human beings bear a moral responsibility for those voluntary acts that have an impact on the lives of others; they are morally accountable for those acts [16]. Callahan feels that willful sexual action, and by extension deliberate sperm gift, falls under this classification. This rationale maintains the whole contention and strengthens his evidence against the minimization of the minimization of the father's task in parenthood.

It is pedestal on the very tangible reality that if the man did not give his sperm the child would not exist. Artificial insemination, in the last investigation, does not make possible the natural manifestation, but rather replaces it with another sort of act, a demonstration that violates the unity of the life partners in marriage and the privilege of the right of the child to be born in the distinctive and sacred background of the marital clinch.

5. Surrogacy

The 21st century is heated with surrogacy creating uncertainty, uproar in many circles: governments, religious bodies, legal bodies, medical bodies and ethical institutions. It is a reproductive technology that have raised so many legal and ethical questions than answers especially in developed nations of the world like Great Britain, Canada, France and United States of America [18]. Surrogacy is a practice where an infertile couple arranges with a woman or lady of child bearing age to bear a child for them for a fee and relinquishes the infant at birth to all parental rights as well transfer physical custody of said child to the commissioning couple. In this case, the surrogate agrees to be artificially inseminated with the commissioning couple's husband sperm to bear a child. This is also only made possible on account that the cause of infertility is traceable to the female couple not the male. This practice is even very rampant today in Nigeria.

5.1 Forms of surrogacy

Three forms of surrogacy are discernable to include;

- a. **Gestational surrogacy:** Here, the commissioning woman produces eggs that will be surgically harvested and fertilized in a glass dish by the husband's or a donor's sperm. Then overtime, the resultant embryo is implanted into the womb or uterus of the commissioned or volunteer surrogate to carry it to term.
- b. The second form is a case where the couple is infertile, and then donated embryos will be administered into the surrogates' womb to produce a child for the hiring or commissioning couple [1].
- c. **Traditional surrogacy:** In this case, the surrogate is artificially inseminated with sperm from the husband or donor. With the surrogate being the generic mother of the child produced [1]. This is typical of the example in the bible between Sarah and Abraham where Hagar was commissioned to bear child Ishmael for Abraham. According to Normal shields, this transaction in most cases goes with one kind of compensation or the other to pay off for inconvenience or risk experienced in the process [1].

However, it must be observed that this form of surrogacy carries with it a lot of consequences to include financial exploitation of one party by the other; surrogate mother may decide to keep the child after birth and make it a legal issue; it may result in a disruption of the surrogate mother's own family life; at some circumstances the commissioning couple may reject the child and many other implications. When taking a look at the part religion plays or has played in surrogate motherhood, we tend to see the narrative of Abraham and Sarah. The ethical and moral issue encompassing the situation was Sarah masterminding Abraham and Hagar to have them a kid. It was the practice of her native country. This was one of the lawful codes of

Mesopotamia. Definitely the wife decided the privileges of the offspring. God did not condone the act of surrogacy. Abraham was blamed for following in the strides of Adam. They allow their spouses to lead them off track instead of obeying and trusting. The result was enduring and disappointment. Scriptures additionally discloses to us that their envisioned blessing turned out to be reviled. Domestically there was a considerable measure of strain, anguish, and disdain between the women.

The circumstance of the Egyptian maid could in all likelihood be reflected today. Being a surrogate gave Hagar an elitist feeling and she wound up proud and pompous. Scripturally the bitter disagreement involving the offspring's of Sarah and Hagar is so deep until the consequences are felt in our world today. Sarah's offspring, the Jews, and Hagar's offspring, the Arabs, are as up till now battling for the ownership of the Holy Land. Considering the greater part of the agony and grief related with surrogacy in the Bible the circumstances definitely point out man desire to be selfish.

Another issue that ought to be considered in sperm or egg donations is the sentiments of surrogate. How does the spouse or wife feel about an outsider being associated with the conception of their child? Is their confidentiality being invoked? At the point when, if at any time, will the child parent educate the child concerning the way of his or her conception? Also, Technology is costly and unquestionably in the way in which the couple will utilize their funds, the two ought to be in agreement. Again, because the gestational mother will not likely be the child's primary caretaker, there could be legal questions that arise in terms of what – if any – involvement she will have with the child once born [19]. Also, there are also ethical considerations that are brought to mind in terms of informing the child of his or her surrogate mother, as doing so may have an effect on the child's self-identity [19].

6. In-vitro fertilization, sperm and eggs donation

Conception and birth of a baby by egg donation in the early 1980s brought serious controversy to issue of *in-vitro* fertilization and eggs and sperm donation in the world at large [20]. This medical technique was actually developed in the 1970s to assist couples with infertility problems have children. This surgically removed eggs from the wife is required to be fertilized either by her husband's or a donor's sperm in a receptacle glass. To solve or reduce some of the problems associated with *in-vitro* fertilization, Spilker and Lie prefer that sperm rather be gotten from anonymous donor(s) [20]. This practice is mostly used to help couples desperately in need of children. It must be borne in mind that prior to extraction off eggs is carried out; the woman under consideration will be given a stimulus drug in order to stimulate the production of eggs which can then be harvested through surgical means. However, the

drug has the capacity of increasing the risks of leading to multiple births [5].

7. Ethical and bioethical considerations

On matter of ethics, majority interests and natural ways of doing things speak with loudest voices. Though some bioethicists especially those of humanists circle and inclination may encourage *in-vitro* fertilization on grounds of the end justifies the means. This principle is ethically wrong. Agreed all said techniques highlighted in this work are meant to help those who are desperately in need of children. From a Christian ethical perspective it is wrong as the actions for any reason and less virtuous. It negates God's original intention of parenting. Again from a bioethical, view these techniques have about 20 percent success rate with higher and increased risk of still birth and genetic abnormality; ethically considered, it is not worth it.

The cost implication of artificial womb, surrogacy and *in-vitro* fertilization etc, is very high, very extensive and beyond the reach of average citizen but the rich [21]. These processes encourage human eggs and embryos trade, and by that children are degenerated into commercial commodities. More so, as McCormack rightly observes that in the process, many embryos are wasted thereby depriving those tiny human beings (embryos) of life" [12] giving the believe that life starts at conception, meaning fertilization of the eggs in a glass tube marks the beginning of that life and directly a negation of the sanctity of human life.

Sperm donation practice had encouraged anonymous donor in the past but today this practices is obsolete faced out as the donor identity must be known and once the child reaches 18 years of age [8]. David Thomasma claims that *in-vitro* fertilization is a kind of miniaturized version of monogamous marriage where the animalcule/husband gets through the simple opening of the egg/wife, which thereafter, closes [23]. It implies that eggs and sperm should not be given or interchanged to any other person outside the marriage bond or risk committing adultery by proxy. Donating eggs isn't a kind of benign medical technique. Ladies must be given ovulation- incitement hormones. These hormones are related short-term risks including Ovarian Hyperstimulation Syndrome (OHSS) fertility [24]. There likewise are intense threats from anesthesia, disease, and bleeding; some medical problems could jeopardize a young woman's future fertility [24]. Likewise, there are potential longer-term dangers of ovarian or different cancers.

The ethical open deliberation on paying women for their gametes has depended on whether oocytes can be conceptualized as something that has market value or whether they possess a sacred category of human life that can't or ought not to be commoditized. Some who trust that no exchange oocytes can be viewed as ethical contend that gametes are the building obstructs from which beings are

created, and, accordingly, they ought not be acquired or commodified. To do as such cheapens the importance of human reproduction and family structure. As Cynthia Cohen contended:

"Purchasers receive a product of your body that can be manipulated to create, not just a generic child, but a particular child with certain distinctive features and characteristics derived from you... The derivative dignity of human gametes is being denied as they come to command varying prices in the marketplace, depending on the value of certain features of their progenitors. In effect, this amounts to the purchase of children. It also involves purchasing parenthood, for it exchanges for money that special relation between the gamete provider and the child who results from his or her gamete that providers recognize cannot be denied." [25]

Also, the practice of eggs donation is ethically wrong because with it the woman has to be treated with hormones with the consequence of stillbirth, genetic abnormal babies and or multiple births. It also breeds a controversy between biological mothers and social mothers. To be candid, donation of human gametes (sperm, eggs or embryos) create serious danger for generations yet unborn by not knowing their true genetic relationship and by this ended marrying themselves and committing sacrilege. Drugs that create hormones can as well cause harm to the women.

8. Conclusion

Agreed issues of infertility has occupied great spectrum of our life a people and a nation. It is a thing of great concern especially to those who are desperately in need of children and as such will stop at nothing to ensure that they have them. Hence, the varying techniques ranging from artificial insemination, sperm donation and insemination, surrogacy even when many have argued that it is wrong as such arrangement depersonalizes reproduction and creates separation of genetic, gestational and social parenthood. Again, extension is still made to *in-vitro* fertilization, sperm and eggs donation, we have to conclude by saying that wrong means can never lead us to a right end, so is our caution that issue of infertility is not a do or die affair a thing to be pursued without restraint, not a moral priority to deploy physicians skills to treat it. Appeal to the Christian Bible reveals in many chapters and books of the Bible that it is God's single power or prerogative to give or not give children. All attempts past and present in man contravening the will of God had only ended him (man) in woes, sorrow and pain in the words of the Bible Proverbs chapter 3:5. There is a strong need to create social awareness against stigmatization to help reduce desperations. There are lots of orphan's available seeking help rather than resorting to unethical ways, children could be adopted.

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