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Discordant Perspectives on Girl Fertility and Egg Donation in an African Context

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ABSTRACT The aim of the study was to assess the extent to which girl fertility and egg donation are understood in an African context. The study surveyed discordant ideas about girl fertility and egg donation in Africa. A survey of literature showed that girl fertility is largely understood from a cultural perspective in some African societies. There are various beliefs that surround girlhood and womanhood in Africa. The concept of egg donation is a fairly new phenomenon in African literature. It was revealed in this study that some of the girls in Africa embrace egg donation as a form of empowerment for girls and women who fail to conceive. It is argued in this study that the donation of eggs could be based on altruism and financial benefits. The study highlights some of the unethical practices that could be perpetuated by international egg donor agents and how girls and women could be exploited unknowingly. It is argued in this study that global forces in support of egg donation could have a domineering effect on traditional African beliefs that are against assisted reproductive technologies. The literature survey depicts the desire by egg donors to be in contact with their genetic children and the biological mothers. The controversy surrounding laws that prohibit contact between egg donors, receivers and children is discussed. Future studies can focus on laws on egg donation and rights of egg donors and embryos in Africa.

INTRODUCTION

The concept of girl fertility is not a new phenomenon in African traditions and child rearing practices. The socialisation of girls in Africa incorporates cultural awareness of a girl's fertility and its implications for her life as a girl, woman and mother (Kioli et al. 2012). However, the concept of egg donation is a fairly recent development in Africa. International brokers in egg donation were operating in Asia, Europe and the US but recently Africa has become a competitive market for harvesting eggs from girls and women (Laruelle et al. 2011). This paper looks at the controversies associated with girl fertility and egg donation in an African context. The paper highlights the concepts within the following framework: girl fertility in a traditional context in Africa, unconventional methods of proving girl fertility in an African context, teen abortion and HIV risk in Africa, dealing with infertility in an African context, organ donation in Africa and theoretical perspectives on egg donation.

Girl Fertility in a Traditional African Context

Girl fertility in this paper refers to a girl's ability to have children in adulthood. In a traditional

African context, fertility is associated with childbearing (Kioli et al. 2012). In this regard, girl fertility and fecundity are not distinct terms; they are used interchangeably to imply reproductive capacity. The terms could have different implications in demography. In demographic terms, fertility refers to couples and the number of children they have while fecundity refers to the potential to have children (Garenne et al. 2007). The traditional African perspective looks at a girl as having a potential to have children when she gets married or chooses to have children (Gwandure and Mayekiso 2012). A woman's fertility is normally measured in terms of the number of children she has. The traditional African perspective also considers children's health as reflective of the mother's fertility. For example, stillbirths, miscarriages, and preterm births or premature births are regarded as a sign of poor maternal health or low fertility in a traditional sense (Gwandure and Mayekiso 2012). In this regard, girl fertility awareness is characterised by an expectation to have children and the development of sexual fantasy that results in relationship formation and marriage (Gwandure 2009). The markers of girl fertility in a traditional African context are the development of secondary sexual characteristics, sexual fantasy and sexual desire (Gwandure and Mayeksio 2012). A

girl's female relatives especially the father's sister or mother's sister are sanctioned to groom the girl for marriage and motherhood and they try to develop positive attitudes towards gender roles in the girls (Obare et al. 2006). The aunt watches a girl's developmental milestones and if she senses delays in the development of secondary sexual characteristics and interest in boys or men in general, the aunt would start teasing the girl that she is not behaving normally as a girl or she could initiate communication between the two about reproductive health and sexuality (Gwandure and Mayekiso 2012). In a traditional African context, unlike in Western societies, girls and their parents do not discuss sexual matters or reproductive behaviours of parents or children although HIV and AIDS educators are now encouraging households to engage in HIV and AIDS prevention talk (Miller et al. 1998). A father or mother who strongly believes in traditional African beliefs is not free to say to his or her child that his or her child is beautiful or attractive but relatives can say so. This flattery is important in building confidence in the girl about her fertility and body image but the abuse of it by relatives can result in child abuse or indecent assault (Gwandure and Mayekiso 2012).

Unconventional Methods of Proving Girl Fertility in an African Context

It is difficult for a girl to know whether or not she will have a child in adulthood. Some girls get into marriage without knowing their fecundity. In a traditional African context, girls do not experiment with sex to test if they could conceive. Although some girls in Africa consult medical doctors and fertility laboratories to establish their reproductive capacity, some girls with traditional beliefs do not visit hospitals or clinics for that purpose (Preston-Whyte 1998).

There are vital signs that are watched by girls as they grow. Girls in Africa look up to having menstruation as a sign that they will have children. In a traditional sense, their breasts are a sign that they can fall pregnant and will have milk for the baby (Gwandure and Mayeksio 2012). The increase in height and the development of adult features are perceived as indicative of girl fertility. If the menstrual flow is low with a few drops, the girl can get worried as that could be interpreted as a sign of low fertility (Gottlieb

1982). If the flow is uneven and lasting for a day or two, a girl could misconstrue that as low fertility because they expect the menstruation period to take approximately a week. According to some African customs, women on their menstrual period are not allowed to participate in traditional ceremonies that involve ancestral spirits (Gottlieb 1982). Some girls with traditional beliefs in Africa believe that fertile girls have heavy menstrual flows that warrant exclusion from the traditional ceremonies. Absence of menstruation in girls is considered as a sign of infertility (Gwandure and Mayekiso 2012). There is African traditional medicine that is given to girls to stimulate menstruation and there is traditional African medicine that is given to women who have reached menopause to rejuvenate them and stimulate ovulation, that is, kuuchika, in Shona language (Gwandure and Mayekiso 2012). The women will start to have children again in accordance with traditional African healing practices and beliefs (Shoko 2007).

Teen Abortion and HIV Risk in Africa

Africa is a continent that is characterised by high fertility, high maternal morbidity and high mortality rates (Jaffre 2012). The culture and laws of many African countries protect young girls from sexual exploitation and unwanted pregnancies. Making a girl pregnant is a punishable offence depending on the age of the girl (Kioli 2012). Civil laws and African customs hold the man responsible for the mother and the born child (Laird 2011). Despite the control on sexual permissiveness, Africa still experiences a high number of unsafe abortions, illegal abortions and legal abortions among teenagers (Sedgh et al. 2012). Some of the reasons behind the abortions are: denied paternity, a situation in which the girl feels she will not be able to look after the baby alone, poverty, unwanted motherhood, fear of parents, disruption of education or employment, social stigma and the need to have children when one is gainfully employed or married (Grimes et al. 2006). It cannot be denied that some teenagers engage in unsafe sex without expecting to fall pregnant (Ahmed et al. 2012). Some teenage girls might have the perception that they might not fall pregnant in their first sexual encounter with men or when the sexual intercourse is infrequent. It is common for some girls in Africa not to be on any form of contraception relying on men to protect them from unwanted pregnancies or HIV infection (Ahmed et al. 2012). Some of the girls could have the perception that being on contraception could result in their boyfriends forcing them to have sex without condoms because the boyfriends could tell the girls to fear nothing since contraception prevents conception. This exposes girls to HIV infection or sexually transmitted diseases. A girl could have the perception that if a boyfriend sees her with condoms or knows that she is on contraception, he could misinterpret that to imply that the girl is loose and always thinking of having sex (Williamson et al. 2009). Preparedness for safer sex and contraception can be viewed negatively by girls with traditional African beliefs or strong religious beliefs (Ahmed 2012).

The ethical concern about a girl's reproductive health rights is that laws on contraception in most African countries do not allow anyone, even parents, to regulate children's fertility, or to force their daughters to be on contraception to prevent unwanted pregnancies, HIV infection or the disruption of education (Ncube and Ross 2010). When parents and children differ in opinion, the law considers the best interests of the child in most countries (Wood et al. 2011). Teaching children about sex and preparedness for sexual intercourse, depending on the degree, could be interpreted at law in South Africa as "sex grooming" which is a punishable sexual offence (Criminal Law, Sexual Offences and Related Matters Amendment Act No. 32 of 2007). Some African cultures expose girls to rites of passage that go against international laws on the rights of children and young women. The exclusion of girls on their menstrual cycle from participating in traditional ceremonies in Africa is tantamount to violation of human rights and reproductive rights (Gottlieb 1982). It can also be argued that the desire by parents and teachers to know whether or not the girl has sexual partners or is sexually active can be interpreted as offensive to the girl's right to privacy and dignity. In South Africa, parents, teachers and relatives sometimes unknowingly violate provisions of Children's Act, No. 38 of 2005 by attempting to provide sex education, sex-role education, relationship counselling and HIV and AIDS education against the girl's will or best interests (Ncube and Ross 2010). In an African context, relatives responsible for preparing the girl for courtship behaviour, relationship formation, and marriage do not regard a girl's age, wit and education level as important (Gwandure and Mayekiso 2012). In a cultural sense, human sexuality and reproductive behaviours are not related to an individual's level of education. This perspective to human sexuality and reproduction allows elders and significant others to interfere with the girls'sexuality and perceptions of fertility in an African context (Cobbah 1987).

Dealing with Infertility in an African Context

When people marry they are expected to have sex and to have children born out of that marriage. In a traditional African context, people do not marry solely for sexual pleasure (Gwandure and Mayekiso 2012). The extended family expects couples to have children. The family is expected to grow by having children that are seen as part and parcel of the extended family (Pequegnat and Bell 2012). Couples do not choose to remain outside the larger tribal group because their surnames or totem names normally reflect the extended kinship that is based on ethnicity. Infertility can result in divorce in some traditional African societies (Hollos and Larsen 2008). Even in developed countries, infertility could be stigmatising and it could be perceived as a burden by couples (Whiteford and Gonzalez 1995). In an African context, women are largely blamed for infertility despite medical evidence to the contrary (Hollos and Larsen 2008). The infertility is usually attributed to myths such as that the woman is a witch, or was bewitched because of the sins of her parents, the extended family, ancestors or that she is possessed by a spirit that interferes with conception (Hollos and Larsen 2008). A girl's infertility can be attributed to waywardness and not following traditional values that guide womanhood (Hollos and Larsen 2008). The infertility can be attributed to "blood incompatibility" between the man and the woman. In some traditional African beliefs, a man and a woman with incompatible blood cannot have children but when they get different partners they will each start to have children. In traditional African terms, "blood" can refer to sperms or eggs and in that sense a child is "parents' blood" In African societies with negative beliefs about infertility divorce can be warranted and the bridegroom can reclaim part of bridewealth (Hollos and Larsen 2008). In some ethnic groups, a woman who dies without a child is

buried on the outskirts of the town (Hollos and Larsen 2008). The same harsh punishment applies to a man who dies without children in some African societies. Among the traditional Shona people, elders would put a rat in the grave and they would perform a ritual to "tell" the corpse that the rat they were giving him was now his wife because he was not interested in women and getting married in his life. Even if some of the practices are abandoned due to modernisation, some societies still frown upon men who die without a family and some societies practise some of the traditions in privacy (Gwandure and Mayekiso 2012). A woman without a child does not attain full adult status in some African societies (Hollos and Larsen 2008). It should be noted that in an African context the term "girl" generally refers to females who have not yet reached puberty, teenage girls and older females without children who are still living with their parents. The term "woman" can also refer to teenagers with children in a traditional African context. The teen mothers are regarded as adults even though they are below eighteen years of age or have not reached the legal age of majority (Gwandure and Mayekiso 2011). The term "woman" in most African societies refers to married women with or without children (Gwandure and Mayekiso 2011). In this context, it can be deduced from the literature survey that infertility is socially perceived as disturbing and feared among traditional African societies.

Some cultures do not ask for a reimbursement of a portion of the bride-wealth in case of infertility; instead, they accommodate the woman in the family but will allow her husband to marry another woman or several, depending on the culture. The couple can choose to adopt relatives' children as their own according to African customs (Foster 2007). An impotent man could marry a woman with children and the children could use the surname of the stepfather in patrilineal societies in Africa. In some instances, a woman who cannot conceive could ask younger sisters from her extended family if they would be interested in marrying her husband according to the traditional African customs. This practice violates women's conjugal rights but in many African countries the law on customary marriages allows the man to marry more than one wife (Recognition of Customary Marriages Act No. 120 of 1998). This complicates the situation if the infertility is caused by the man's impotency. In some situations, the wife and the husband's mother will secretly agree to allow the husband's younger brother or other close blood relatives to have sex with the wife in order to cover up the impotency and to save the marriage from collapse. In such situations, biological parenthood is regarded as more important than genetic parenthood. Neither the woman nor the husband would be interested in a marriage that has no children because most African societies are hostile to infertility (Hollos and Larsen 2008).

Even among married couples with modern values, genetic testing of children to prove paternity is rare. Even though most couples seek medical help in case of fertility difficulties, it is unusual for couples to suspect relatives of sleeping with their spouses and force them to go for blood tests and to take new-born babies to doctors for DNA tests. It is common in some African countries for unmarried younger sisters to sleep with the elder sister's husband when she is away (Njovana et al. 1996). Similarly, a younger brother can be teased by the elder brother's wife to prove his masculinity. As a way of showing his virility the younger brother can sleep with her. This scenario illustrates hidden forms of biological parenthood that society is reluctant to confront. Even if some family members become suspicious, this is usually kept under wraps and not reported. This sexual practice is not treated strictly as outright adultery in most African cultures. It is a common saying among the Shona people that an adulterer has no child (Gombarume harina mwana). It is advice given by traditional African courts (The Chief's Court) to men accused of adultery that, in the end, the child belongs to the wife and her husband and their extended family and not the boyfriend. According to African customs, a child born out of such a relationship will not be surrendered by the couple or family to the adulterer even if he claims to be the genetic father of the child. Biological parenthood is a controversial issue currently affecting assisted reproductive technologies globally (ARTs).

Organ Donation in Africa

Donation of organs from well-wishers happens when there is organ failure in patients. The patients will be in desperate need of human organs for survival. This need causes patients to

pay huge amounts of money to organ brokers if they cannot get the organs free of charge (Bakdash and Scheper-Hughes 2006). Sometimes organ donation is driven by the bait of money that organ dealers dangle to potential organ donors. Organ donation is not a known concept in the traditional African way of life. People live and die with their body parts intact and it is inconceivable in some African cultures to give body parts to others for use. If a person dies and one part remains "alive" or lives on in another person, that is controversial to the traditional African way of interpreting death and spirituality. There are ceremonies that are performed to bring the spirit of the deceased home hence organ donation is diametrically opposed to the traditional way of interpreting life and death. Egg donation and organ donation are two life promotion technologies that are perceived as causing discord and disharmony in some African communities.

The ethical issues associated with organ donation centre around financial gain and exploitation of the poor in Africa and Asia by international organ dealers (Bakdash and Scheper-Hughes 2006). In some cases, it is reported that an organ donor's health deteriorates and some organ donors lose employment or fail to perform heavy duties due to ill health (Bakdash and Scheper-Hughes 2006). Poor living conditions can exacerbate the health of organ donors in resource poor communities in Africa.

The concept of egg donation in humans became popular in 1983 when research showed that a fertilised egg could be implanted onto another woman resulting in pregnancy (Harris 1983). It is a Western concept that comes with advancement in medical research and many people in Africa need to be educated about it. Egg or oocyte donation is described by a medical ethics researcher as follows: "At the moment eggs can be removed from a woman and fertilised in a dish on the laboratory shelf. These embryos can then be implanted in a woman so that she can grow them and give birth to the resulting baby in a normal way" (Harris 1983: 218). This process allows the woman to "shop" for genetic characteristics she likes in embryos before they are implanted in her although laws governing pre-implantation genetic testing (PGD) vary from country to country (Baruch et al. 2008). Pre-implantation genetic testing (PGD) empowers the woman to choose what she wants in a baby and also to avoid genetic diseases (Baruch et al. 2008). If the embryos are not used they are frozen for future use (Harris 1983). The ethical concern associated with the treatment or handling of embryos in in vitro fertilisation (IVF) is that: "They can then be "flattened" for examination, simply thrown away like most aborted embryos, used for experiments and/ or for therapy (more of which anon), or they may be frozen for future use" (Harris 1983: 218). For example, a woman gave birth to the other "twin baby" after implantation of an embryo that was frozen for sixteen years (Horsey 2006). It is now common for women to fall pregnant using eggs, sperm, or embryos that were frozen many years ago during their youth and some men use sperms that were frozen a long time ago when they were young. The freezing or cryopreservation of eggs, sperm and embryos in laboratories is common in the US as a way of delaying childbearing (Vallejo et al. 2013). This practice by men and women could be done to avoid having children in old age. The perception of some couples and individuals is that old people's gametes are not as good as those of young people, so in modern societies, young people bank sperms and eggs by way of freezing them in their youth and then use them later in life when they want to have children. Some people view egg donation positively while others are concerned about the ethical implications of destroying unwanted embryos in laboratories while at the same time freezing some of the embryos for future use (Harris 1983). In vitro fertilization (IVF) is now adopted by some of the Ministries of Health in Africa even if some sections of society are against it (Bento et al. 2013).

Theoretical Perspectives on Egg Donation

There are many reasons why a girl or woman can choose to become an egg donor. This paper focuses on three main perspectives on egg donation. The perspectives are rational choice theory, evolutionary theories, and altruism. However, these paradigms only provide a guide to the understanding of oocyte donation within the context of girl fertility in Africa. Rational choice theory posits that all behaviour is thoughtful and purposive and individuals take responsibility for the costs or consequences of their behaviour (McQuillan et al. 2008). Individuals make decisions about their reproductive health that are based on financial prudence and

the choices they make are based on cost-benefit ratio. The costs of egg donation are the pain associated with the medical procedures and the health risks that can arise from the operation. Among tissue, organ, and egg donors, the benefits could be money and opportunities that come with financial empowerment. It has been found in a study that sought to reduce HIV infection among school girls in Malawi and Tanzania that "cash transfer" or small amounts of money given directly to girls for being able to remain HIV- negative reduced risky sexual behaviours, empowered the girls to finish their studies, access education, reduced poverty and it was found that behaviour change projects which provided cash grants to women enabled them to make choices about their reproductive rights and they became less dependent on men for economic support (Harman 2011). It can be expected that girls who donate their eggs for financial reasons can use that money to pay for their needs.

Evolutionary theorists argue that parents and grandparents interfere with children's reproductive health behaviours because the children have parents' and grandparents' genes (Simpson and Gangestad 2001). In a sense, parents and grandparents are laying claim to and trying to control what is genetically theirs (Simpson and Gangestad 2001). They would like their genes to be protected by the children and passed on to the next generation through the competitive natural selection of partners (Geary and Flinn 2001; Simpson and Gangestad 2001). It is about survival of the fittest and courtship behaviour is about the display of desirable characteristics for a love relationship to develop (Gangestad et al. 2007). If children die in their youth, then the genetic material is not transmitted to the next generation. In the case of infertility or when couples choose not to have children, evolutionary theorists and biologists would argue that it is a threat to human existence because humanity will be extinct without procreation. In this context, evolutionary theorists, biologists and ethologists provide evidence that organisms sometimes maximise reproductive success and improve the genes of members of a group by wittingly allowing younger males or females to mate with older members of the group despite the rivalry of the older or larger and domineering male or female partners (Berec and Bajgar 2011). In the case of frogs, the female will allow younger or smaller satellite males who will be hiding away from the bullfrog to mate with her when the bullfrog falls asleep (Berec and Bajgar 2011). In the same manner, male organisms can maximise reproductive success by mating with as many females as possible or by selecting high-quality females (Berec and Bajgar 2011). It should be noted that this practice in small organisms, reptiles, birds and animals is also common in humans and it is practised in form of multiple concurrent sexual partners, serial monogamy, polygamy, anonymous sex, group sex, sex parties, promiscuity and sexual permissiveness. These sexual practices are controversial because they expose partners to HIV infection. According to evolutionary theorists, if a woman donates eggs or a man donates sperms resulting in successful implantation of the embryo, it implies that the individual is multiplying and perpetuating their genes well after their death (Jansen 1985). The deceased oocyte or sperm donors will have offspring who are not declared or known to the public or the extended family. In this context, girls who intend to donate eggs and boys who intend to donate sperms can face resistance from parents and relatives. In some countries, it is a legal requirement that the donor and receiver remain anonymous thus making it difficult for donors to trace their children or claim them back. Parents and grandparents in Africa could perceive egg and sperm donation as a loss of genetic rights over their grandchildren and great-grandchildren respectively while relatives could interpret it as a decline in kinship membership and sphere of influence of the family (Jansen 1985).

Altruism generally looks at the desire by individuals to help others without strings attached (Lafaye and Kreis 2012). Many donors give their organs and tissues to alleviate suffering in patients with kidney problems and other life-threatening conditions (Delmonico et al. 2002). However, it is argued by some researchers in medical ethics that living organ and tissue donors should not receive payment (Delmonico et al. 2002). However, when eggs are bought from a dealer and the implantation happens between the doctor and the patient in a laboratory or private hospital, government control can be minimal or nonexistent in Africa (Ahuja et al. 1999). Some women choose not to fall pregnant; they would rather look for a surrogate mother and pay her to compensate for the gestational surrogacy and labour costs (McEwen 1999). In some African countries, laws on donation of oocytes do not allow fertile women who choose not to have children to receive donated eggs. In South Africa, the commissioning parent, that is, the woman entering into a legal contract with the surrogate mother, has to show evidence to the court that she is not able to give birth to a child and that the condition is permanent and irreversible (Children's Act No. 38 of 2005). This requirement can be violated in some African countries when couples seek help in private hospitals and situations where the country does not have laws that specifically deal with egg donation.

Controversies Surrounding Girl Fertility in Africa

In the traditional African context, people do not show a distinction between physical health and reproductive health thus confounding the meaning of fertility in an African context. Physical health, psychological health and reproductive health are generally treated as one. There is no dualism between physical health and psychological health. The approach to health in an African context is that of embodiment, that is, the idea that all parts of the body are integral to the human being and that no part can be separated from the rest of the body without affecting the individual (Goldberg 2002). Egg donation could be interpreted as violating the girl's integrity. When she donates eggs and some get fertilised and some women conceive and bear children using her eggs the girl with strong traditional beliefs could develop the feeling that she is already a mother before she even starts to have her own family.

Fertility testing is not practised in Africa and it can raise controversy as is the case with virginity testing (Leclerc-Madlala 2001). All egg donors are screened to ensure that they donate healthy eggs in laboratories. Generally, girls in Africa do not have sex with men to prove that they are fertile (Gwandure and Mayekiso 2012). Some of the girls would not even want to be examined to see if they could have children; that can only happen after marriage when they experience difficulties with conception at a time they would like to have children. It is a belief in many African societies that pregnancy is viewed as an accidental happening for which couples need not plan for the day conception will happen. Children are expected in traditional African societies but conception is regarded as misleading as the delivery day, couples would not know in advance (Gwandure and Mayekiso 2012). It can be argued that fertility testing and egg harvesting in girls by international organisations involved in egg donation could be viewed negatively in Africa by people with strong traditional values relating to girl fertility, conception and motherhood.

Controversy Surrounding the Reasons for Donating Eggs

The reasons for donating eggs are usually based on goodwill and monetary gain. People are inclined to help those in need and people sometimes offer what they have in exchange for money. Moreover, it is legal to donate eggs and receive token money associated with egg donation costs in some African countries (Children's Act No. 38 of 2005).

Egg donation could be compared to blood donation, which is an altruistic act to help those in need (Lafaye and Kreis 2012). It is in line with modernity and being educated enough to understand global challenges in women's reproductive health. The contradiction is that egg donors are paid token money for the donation (Lafaye and Kreis 2012). The token money could be considered attractive enough to lure young women into donating eggs. Egg donor agents usually advertise their services at universities and colleges. University and college students usually need money to pay for their tertiary education. The ethical concern is about whether or not egg donation is purely an altruistic act or an international egg selling business (Delmonico et al. 2002).

By donating eggs, egg donors allow their eggs to be used for multiplying humanity. This is supported by evolutionary theorists who argue that living organisms have to multiply otherwise they get extinct (Simpson and Gangestad 2001). In an African context, close- knit relationships are encouraged for the protection of orphans and vulnerable children. In this context, childless couples are encouraged to adopt children who would regard them as parents (Foster 2007). Africans have no problems looking after relatives' children, orphans and other vulnerable children. It is a way of life to live in extended families but the donation of gametes could be problematic.

Concern about the Character of Egg Receivers

There could be a perception that donated eggs could be abused. Egg donors tend to be prescriptive about who should receive the eggs. In some countries, there are laws which restrict the donation of eggs to postmenopausal women or "the over fifties", a practice which is regarded as discriminatory (Smajdor 2008). This is an evolutionary argument about discrimination based on natural selection and survival of the fittest (Burnstein et al. 1994). It was found in a study on decision-making in life-or-death situations among college students that they chose to help close relatives over distant relatives, the healthy over the sick, the wealthy over the poor, and the premenopausal woman over postmenopausal woman (Burnstein et al. 1994). Some argue that women who can conceive should not receive embryos because they can have children if they choose to do so. This could be interpreted as discriminatory. It is argued that individuals and organisations that can abuse the donation or have a record of abusing children or are involved in criminal activities should not be allowed to receive eggs (Ahuja et al. 1997). This is in tandem with evolutionary ideas of protecting the offspring and people who have the potential to perpetuate the genes (Simpson and Gangestad 2001). In this case, the egg receiver conceives and perpetuates the egg donor's genes. In a way, according to evolutionary theorists, parents and grandparents "live" in their children and grandchildren through the transmission of genes. In evolutionary terms and traditional African beliefs, people who have children do not become extinct; they will continue to live in the offspring, that is, children, grandchildren and great grandchildren (Gangestad et al. 2007). In this sense, some traditionalists in Africa could perceive egg donation as a way of giving away children to people of unknown identity or morality.

Contact with the Child and Biological Parents

Some countries have laws which prohibit any form of contact, physical or electronic, between the egg donor and the child and his/her biological parents. In traditional African societies and some Western societies, gametes are regarded as an individual' s "blood" hence genetic parents have blood ties with children conceived

through egg donation (Daniels 2005). It should be noted that assisted reproductive technologies (ARTs) which include intrauterine insemination (IUI), in vitro fertilisation (IVF), intracytoplasmic sperm injection (ICSI) and surrogacy challenge the notion that blood is thicker than water through the promotion of biological parenthood (Quiroga 2007). The woman who conceives after receiving a donated egg is a biological parent; she does not share genetic material with the child. The prohibition of contact could be associated with the notion that the child's relatedness to the general characteristics of the family and resemblance to the genetic parents might trigger memories that stretch back to illuminate the circumstances that led the girl to donate eggs. It is an ethical concern that some parents might not disclose to children that the children were conceived through egg donation (Readings et al. 2011). A similar trend is noted among parents who benefit from donor insemination (DI). They keep the information as a secret or taboo away from the children (Readings et al. 2011). Some parents who chose to reveal such information do so slowly in layers of disclosure to children, family members, and friends (Readings et al. 2011).

Egg Donation and Playing God

Egg donation is driven by global trends and advancement in maternity health. The youth are becoming globally connected through the social media and advancement in information technology. Culture is not static it gradually changes with the prevailing social environment to serve its purpose otherwise it could outlive its usefulness (Gwandure and Mayekiso 2012). Even if parents could be opposed to egg donation, girls could, on their own, seek organisations that are in the egg donation business (Wood et al. 2011). However, some researchers argue that egg or sperm donation has more ethical implications than organ donation in that an egg or sperm has genetic information that is passed on to the next person and that gametes are the basis of humanity and ethnicity (Quiroga 2007). In a way, egg donation or in vitro fertilisation is playing God and those who promote it in Africa attract the sort of hostility that is usually reserved for God (Harris 1983). Egg donation could be interpreted as doing God's work or trying to correct creation or to say God made a mistake (Coleman

1996). Others argue that scientists do God's work by promoting fertility in Africa (Coleman 1996). Playing God is a controversial ethical concept in the practice of modern medicine.

Exploitation of the Poor by the Rich in Egg Donation

It could be argued that Africa is targeted for cheap egg donation because there are few medical specialists in government who can investigate unethical conduct or breach of medical ethics by international organisations that promote egg donation (Dickenson and Idiakez 2008). It is difficult for governments in Africa to establish the costs incurred in egg donation and the profit made by egg dealers. There are few specialists in bioethics and health law experts in Africa who can provide public education on reproductive health rights in egg donation for the poor. Donated eggs could be abused and used for a different purpose such as stem cell research (Dickenson and Idiakez 2008). This raises disturbing ethical concerns such as commodification of egg donation, deception, subtle coercion, and exploitation of women (Dickenson and Idiakez 2008). Litigation for medical injury compensation in egg donation could be almost impossible because the side effects might develop or be felt many years later in a woman reproductive life. The health effects of egg donation may take decades to emerge in participants (Pearson 2006). Worse still, some countries in Africa might not have a compensation formula for calculating the amounts of money to be paid to victims (Pearson 2006).

Egg Donors' Fantasy of Having Children Living Somewhere Unknown

Egg donors could have the awareness of having a child somewhere alive in an unknown place. The fantasy could be enhanced by the perceived blood tie and loss of genetic children in a traditional African context (Daniels 2005). Even though egg donors would have no guarantee that their eggs would be successfully fertilised and implanted, there could be the expectation of having children since the eggs were extracted for the purpose of having children. In the same way, sperm donors could expect to father living children with unknown women. Egg donors could have the fantasy that they have a

child or children living somewhere. In the same vein, donor-conceived children could long to see their genetic parents (Turkmendag 2012). The rigorous medical examination that egg donors go through to qualify as donors could make them feel that they have healthy babies living with a biological or foster mother. They know that prospective egg donors with genetic diseases or unhealthy eggs are disqualified. Egg donors without children who later develop life-threatening diseases such as cancer or AIDS without children could comfort themselves with the realisation that they donated eggs to procreate. Even if they died they would have left offspring on earth through egg donation.

Essentially, egg donation in this context will not be entirely altruistic, there is an unconscious desire to leave offspring on earth and the perpetuation of one's genes (Burnstein et al. 1994). This raises the ethical controversy that can be likened to the fantasy of man who goes out with a married woman, he could think that he is the father of the child and lives in hope that one day the child will come to him. In traditional African customs, he cannot claim fatherhood to the child even if he believed that he was the father of the child. This is the same ethical challenge raised in Western societies about the creation of families through biological parenthood and not genetic parenthood (Daniels 2005). Some egg recipients prefer to receive eggs from known donors, relatives or friends while others prefer to get their oocytes from anonymous donors (Laruelle et al. 2011). As a way of promoting children's genetic rights and contact with the egg or sperm donor and to promote children's rights in relation to personal identity, some countries have changed laws on donor anonymity to allow children conceived through gamete donation access details that identify their genetic parents (Turkmendag 2012). However, laws in some countries are still rigid; they do not allow the donor to meet with their genetic children and biological parents.

CONCLUSION

The literature survey looked at girl fertility and egg donation in an African context. Girl fertility is conceived in terms of procreation in a traditional African context. The literature analysis showed that the concept of egg donation was fairly new and could not fit well within Afri-

can traditional institutions such as the family and childbearing practices. It is argued in this study that financial motives and modernisation could lead girls to donate eggs even though parents might be against egg donation. Egg donation in Africa needs to follow ethical guidelines so that women's rights are not violated. Direction for future studies can focus on laws on egg donation and rights of egg donors, donor-conceived children and embryos in Africa.

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