


At the time IVF was largely unregulated in the UK, both in law and within the protocol of the National Health Service (NHS), headquartered in London, UK. The Warnock Report recommended, and is credited with, establishing a governmental organization [7] to regulate infertility [4] treatments such as IVF and embryological research in general. In 1990, the UK established this governmental organization [7] as the Human Fertilisation and Embryology Authority (HFEA) in London.

The Warnock Report is comprised of a philosophical foreword, thirteen chapters, a table of abstracted specific recommendations from those chapters, and three expressions of dissent. Of the thirteen chapters, the first two explain the methods and scope of the inquiry. The third through the eighth are about techniques of alleviating infertility [4]. The ninth and tenth chapters detail ancillary concerns to infertility [4], such as the storage of eggs, sperm [8], and embryos. Chapters eleven and twelve review issues with embryological research and possible future technologies. And chapter thirteen recommends the establishment of a governmental body that has authority over human fertilization [6] and embryological research.

Starting with the foreword, the Warnock Report makes explicit its philosophical pluralism. The report states that people within society have various views on issues concerning assisted reproduction and embryology [9], and likewise people within the committee had differing views. These differing views are presented as a virtue: each member came to the committee with their own values, but all agreed to base the committee’s conclusion on argument rather than on sentiment.

The foreword rejects a cost benefit analysis of assisted reproductive technologies and embryological research, arguing that the moral character of the issues involved demanded an answer to the question of whether it is right that those technologies be allowed in the first place. The Report says that no calculation of aggregate good for society could answer that question. It goes on to argue that some limits on behavior must be in place for any society to be moral. This, it says, is especially true surrounding issues of birth and death, the value of human life, and the structure of the family. The Warnock Report says that the ultimate
concern to be addressed by the committee was the question what kind of society is morally praiseworthy, and what recommendations are appropriate to make the current society more morally praiseworthy.

Chapter one of the report describes the background to the debate, highlighting the first human birth resulting from \textit{in vitro} fertilization \cite{in_vitro} in July 1978. It goes on to say that IVF could potentially open two promising new horizons: the alleviation of \textit{infertility} \cite{infertility} and new embryological remedies to \textit{birth defects} \cite{birth_defects}. The Warnock Report says that society at large was full of the sense that assisted \textit{reproductive technology} \cite{reproductive_technology} was developing too rapidly. The committee was established in July of 1982 to consider, and make recommendations concerning, technologies used in assisted reproduction and in the embryological research that supported it.

Chapter one also details the scope of the inquiry, which included surrogacy, \textit{in vitro} fertilization \cite{in_vitro}, and \textit{artificial insemination} \cite{artificial_insemination}, but not \textit{abortion} \cite{abortion} and \textit{contraception} \cite{contraception}. The authors note that because the science was rapidly changing, the report also has a limited scope in time, and they suggest that future developments in technology will eventually call for the careful consideration of issues not foreseen by this inquiry. The Warnock Report then divides into two general parts. First, in chapters three through eight, the report addresses individual level problems with \textit{infertility} \cite{infertility} and the social context of those individuals. It then addresses the goal of the pursuit of knowledge as a benefit to society, in this case embryological research, in chapters eleven and twelve.

Chapters two through eight each have a general and somewhat consistent formal outline. In each chapter a topic or medical procedure is introduced and described. First the report reviews arguments against the acceptability of a topic or procedure, then replies to those arguments are given. After the arguments and replies are considered, the view of the committee is presented, along with specific recommendations with respect to implementation and policy making the committee finds appropriate.

Chapter two of the report is on individuals and their needs with respect to \textit{infertility} \cite{infertility} services. The first part of this chapter explores the emotional and social reality of a childless couple. Particularly the report says that that couples' reality includes the expectations of friends, family, and religious communities, that they reify the family with children. The report defines the family as the institution of society in which human children develop their individual identities, social behavior, and self-worth. It goes on to say that for many, identity as an individual in society is confirmed and enhanced by their participation in the family as a social institution. This is all intended to say that if a childless couple is biologically incapable of having children through normal methods, they may feel that they're unable to fulfill their own, as well as other people's, social expectations. The couple may feel excluded from a wide range of normal human activities that for them are necessarily part of a fulfilled life. Additionally, many people express the desire to see their genetic material perpetuated and the report says that this and other desires cannot be answered with adoption. The central question of this chapter is whether or not \textit{infertility} \cite{infertility} is a condition that warrants treatment.

The report examines three arguments against treating \textit{infertility} \cite{infertility}: first that the world is overpopulated; second that it is wrong to interfere with nature or with God's plan; and third that the desire for a child is a desire, not a need. The report explicitly excludes the argument against \textit{infertility} \cite{infertility} treatment on the grounds that the world is overpopulated. The report says that overpopulation is outside of the scope of the committee, which was not concerned with
the world at large but individuals within society that pursue infertility treatment. Additionally, the report notes that the number of additional births because assisted reproductive technologies is unlikely to be consequential compared to the background birth rate.

The report then reviews arguments against assisted reproductive technologies and embryological research that appeal to nature or to God’s plan. This argument against assisted reproduction contends that various forms of assisted reproductive technology introduce a third party, for example an egg donor, into an exclusive relationship and by so doing undermine the unity of marriage. In addition to this third party, the argument runs, the procedure itself is unnatural and therefore unethical. At least in part these objections to the procedures were founded on the view that masturbation, as well as chemically stimulated ovulation, is morally impermissible. Here and elsewhere the Warnock Report suggests that no coherent notion of the concepts natural and unnatural are on offer, making this concern religious and personal. The Warnock Report suggests that many people may feel that infertility violates the exclusivity of their marriage, and for them this procedure might not be appropriate. However many people do not feel this way, and, the report contends, it would be wrong to bar them from treatment because of the particular, mostly religious, beliefs of some portion of society.

The third argument that the report considers against infertility treatments concerns the needfulness of infertility treatment, given scarce resources. This objection contends that having a child is not a right but a luxury, and that as such the National Health Service should not be obliged to cover it. The committee argues in the report that this objection was not an objection to assisted reproduction at all, but rather a general concern with the allocation of funding within the National Health Service (NHS). The Warnock Report further says that many treatments covered by the NHS also addressed desires rather than needs, if by needs we mean only those treatments that without access to the patient would die.

Through their response to these three criticisms, the authors of The Warnock Report, representing the considered judgment of the committee, concludes that infertility was a condition meriting treatment. They then addresses issues about general eligibility criteria for participation in treatments. The report argues that treatment should not be contingent upon the character or past conduct of the couple or individual seeking treatment, since no fertile couple faces those kinds of barriers to reproduction. The report argues that single women, men, and lesbian couples should not be barred from having children, however the report strongly suggests that it is best that a child be cared for in the context of a heterosexual family with one father and one mother. The report states that recommending general eligibility criterion for all cases is not possible, therefore decisions on individual cases should be left to the doctor’s discretion.

Chapter three considers common questions about the social and legal consequences of assisted reproductive treatments; specifically how anonymity should be preserved between donors and contracting infertile couples. The report recommends counseling for the couples and third parties during all stages of treatment. The conditions for medical consent concerning all parties involved are likewise detailed.

Chapter four deals with donor-assisted artificial insemination (AI) in the case where the donor is the husband (AIH) and where the donor is a third party (AID). The first section of the chapter described artificial insemination, a mechanical process of fertilization whereby fertilization occurs in the woman, or in vivo, is described and some of the history of the
procedure?s use is detailed. Only one objection to AIH is raised, namely that it is unnatural and involves masturbation. The report suggests that people who feel this way will obviously not want to have artificial insemination themselves, but that they cannot impose this view on those who feel otherwise about masturbation. The committee recommended the acceptability of AIH, however at the same time expressing concern over cases where a husband is dead before the sperm is used for fertilization, an issue addressed in depth in chapter ten.

The report suggests that AID was more controversial than AIH for two reasons. First, some people considered it a form of adultery. This was the opinion Geoffrey Fisher, the Archbishop of Canterbury, when, according to the Warnock Report, his report on artificial insemination was published in 1948. Under the Archbishop?s recommendation, AID should be a criminal offense. From then until 1982, when the inquiry under discussion was established, human embryological research, AIH, and AID were of uncertain legality. The reports reply to the charge of adultery rested on the consent of the husband, which was assumed in the case of a married infertile couple. The Warnock Report also argues that adultery is a sign of a failing relationship, whereas a couple entertaining assisted reproduction is a sign of commitment.

A second objection to AID that the committee considered and that the report addresses is the claim that the father was more likely to not love the child of AID because it would not be his biologically. This child might therefore be stigmatized and perhaps the parents would feel obliged to keep secret the precise nature of their child's birth. The Warnock Report says that these were arguments against lying to children, and for a change in the general social attitude towards children born with the help of assistive reproductive technologies, and that they were not arguments against the technologies themselves.

The Inquiry concludes that AIH and AID should be allowed under license and that no fees should be paid for donation of sperm. Additionally it recommends that the husband, when he has consented, should be the legal father rather than the donor, who should have no parental rights or duties whatsoever. Additionally, the report recommends limiting a single sperm donor to at most ten children. The Warnock Report recommends this limit out of a concern that no one person be over represented in the gene pool, which might lead to involuntary and unwitting incest.

Chapter five is about in vitro fertilization; the term literally means in glass but refers generally to any fertilization that occurs outside of the body of the woman. The report says that IVF was appropriate for perhaps five percent of infertile couples that have medical difficulties that make AI inappropriate. The IVF process entails drug-induced ovulation to make the harvesting of multiple eggs possible. The harvested eggs are fertilized outside of the body to create multiple viable embryos that are then transferred into the uterus.

The report reviews the objection to IVF on the grounds that it is not in accord with the natural process of creating a child and because it violates the unity of marriage by introducing third parties into an exclusive relationship. However in this section the authors review two new objections. Some considered it immoral to produce fertilized embryos that would never be implanted on the grounds that it is unacceptable to allow these unwanted embryos to die. Others suggested that NHS money would be better spent elsewhere. The report does not answer the first objection here, but elsewhere limits the use of human embryos to the first fourteen-days after fertilization on the grounds that no neurological structure was visible before that time. The Warnock Report says that concerns over allocation of NHS funds were
not arguments for prohibition of fertility treatments, but instead arguments for the rationing of funds. The report said that IVF should be available on a controlled schedule.

Chapter five of the Warnock Report details the outcome of a series of IVF treatments carried out from October 1980 through December of 1983 at Bourn Hall Clinic in Cambridge, UK. The report says that the outcomes at Bourn Hall were promising and notes that no major congenital defects have been described in the children produced from these case studies. The report further says that IVF can be regarded as an established treatment for infertility. As such the report recommends that IVF be approved under the same licensing and inspection protocols as AI, and be likewise available within the NHS.

Chapter six of the Warnock Report reviews the problems of egg donation. The procedures involved in egg donation are an intrinsic part of IVF care; however special consideration is given here for cases in which the egg comes from a third party. The report's considerations and recommendations are the same here as they were for AI and IVF procedures. Egg donation is analogized to sperm donation and the Warnock Report recommends that the female egg donor should be regarded as likewise having no rights or duties with respect to any child that results from the procedure.

Chapter seven reviews embryo donation. When a full embryo is donated the recipient woman does not have to be the donating woman: this means that a child that is not genetically related to either of its parents could be born to the infertile couple. Considering once again objections to the practice on the grounds that it involves third party intrusion into an exclusive relationship, the report counters that embryo donation is a form of pre-natal adoption. The report recommends that a procedure called lavage, whereby a donated egg would be fertilized in the donating woman by AI and then flushed out several days later to be collected and implanted in the recipient woman, should not be approved in the mid 1980s, but that it should be considered further as researchers developed the technique.

Chapter eight concerns surrogacy. The committee outlines the general concept of surrogacy as a woman who carries a child to term for another person or couple, whether she contributes to the genetics of the child or not, and who usually receives some payment. The Warnock Report discusses how legal disputes between surrogates and the contracting individual or couple could be adjudicated. The report argues that in cases where the surrogate mother changes her mind and decides to keep the child, it is unlikely that any court would force a separation on the grounds that the woman had a prior contractual agreement. The report thereby concludes that surrogacy contracts are unenforceable and therefore should be illegal.

The report reviews three arguments against surrogacy. The authors again present their argument against introducing a third party into an exclusive relationship: if an individual subscribes to this argument, they do not need to obtain surrogacy services for themselves. The second objection suggests that there is a potential for in utero bonding between the surrogate mother and the developing child; breaking this bond could be detrimental to the child. The rejoinder to this offered by the inquiry is that little is known about in utero bonds but that these considerations don't motivate anyone to prohibit adoption, and the same should be the case with surrogacy. The third argument against surrogacy offered is that there are significant risks for the surrogate mother. The inquiry supplies the reply: surrogates don't become surrogates for no reason. They have made a choice to which there are specific consent requirements. However, the Warnock Report rejects the acceptability of surrogacy, saying that women might be tempted to contract out their pregnancy for vanity sake.
Furthermore, surrogacy arrangements were legally unenforceable and so it was bound to cause immense confusion with regard to parentage. It also recommends that the UK government write laws detailing criminal liability for professionals and others who bring about a surrogate pregnancy.

Chapter nine deals with expanding infertility treatments to couples that may not be infertile but for other medical reasons might find the procedures necessary. Specifically this chapter deals with sex-linked disorders. The report notes that sex-selection, the attempt to control the sex of a child, might be undertaken for social rather than for medical reasons, and it advises that the technology be closely monitored.

Chapter ten provides recommendations about the freezing and storage of human semen, eggs, and embryos to be used for AI and IVF. The Warnock Report recommends that frozen semen and embryos should continue to be used but that frozen egg therapeutic procedures should not be done until more research demonstrating their safety and efficacy has been performed. The report discusses the risks of storage and recommends a five-year review to check for damaged frozen semen, eggs, and embryos. The report recommends that legislation be enacted to ensure that there is no right of ownership over a human embryo. The right to use or dispose of the embryo was then detailed in the report.

Chapter ten also details recommendations for inheritance laws concerning children who are born from the sperm of an already dead husband. The report suggests that AIH in these cases should be actively discouraged, but that if a child was in utero at the date of death of the father, that child should be viewed as illegitimate for purposes of succession and inheritance.

Chapter eleven moves away from infertility treatments and instead concerns issues of scientific research. The first section of this chapter details early embryonic development from egg fertilization through cleavage to the morula stage, on to becoming a blastocyst and up to the development of some early features: for example neural folds and neural tubes, that are identifiable within the embryonic disc. After detailing the early development of the embryo, the Warnock Report suggests that the question of the moral status of a developing embryo is pressing and obvious. The report states that it would not address the question of personhood. Instead the report contends a different question that is more tractable; namely, how ought we to treat a human embryo?

The Warnock Report outlines four potential concerns with the use of human embryos in scientific research. The first view is that fertilized embryos have a right to life. Any human life, on this view, has a right to that life, whatever the stage, no matter how old or young or unborn. Second, that embryos cannot give consent, not being rational agents. Third, that eugenics and trans-species hybridization are the likely products of embryological experimentation. And finally that the moral worth of an embryo, and the moral law prohibiting their exploitation, outweighs any potential benefits that might accrue to society from future scientific research.

In addition to the four arguments against the use of human embryos in scientific research, the Warnock Report outlines three reasons for their use. First, that an embryo is not a human person and that there’s no reason to accord these developing cells special protected status. Second, that while some additional respect might be owed to a developing human embryo, that respect can be weighted against the benefits of research. And third, that no animal model alternatives are suitable experimental subjects for disorders that occur only in humans. The
report recommends that experimentation on human embryos should only be undertaken if animal embryos are unsuitable for the same research. It goes on to recommend that human embryos be afforded some protection in the law, but not the same as a living child or an adult.

The report argues that even though development is a continuous process not amenable to strict stage definitions, some precise decision about the length of time an *in vitro* [5] embryo could be kept alive and used for experimentation must be given. The committee decided on a fourteen-day limit, because, as mentioned above, after fourteen days the beginnings of a nervous system become visible. The report says that this is a very conservative timeframe and that that conservatism was desirable and warranted in this case. The report goes on to air concerns over deliberately bringing embryos into existence for the purpose of experimentations, since some members of the inquiry had significant objections to the practice. However the report recommends that any embryo resulting from *in vitro* fertilization [6], within the fourteen-day restriction, could be used for experimentation.

Chapter twelve details some more speculative issues with respect to scientific research. Particular attention is given to the issue of trans-species fertilization [6]. The report approves of trans-species fertilization [6] only as part of a research program into human infertility [4], but it recommends that the embryo be terminated at the two-cell stage of development. The report also discusses ectogenesis, the process of fully developing a human embryo outside of a pregnant female, and parthenogenesis, or the development of an unfertilized human egg [15] into an embryo. The report says that both possibilities are unlikely and outside of the scope of the inquiry. Cloning and *nucleus* [31] substitution are briefly considered in chapter twelve, as well as therapeutic embryonic biopsies. The committee also discourages the use of embryos for drug testing.

Chapter Thirteen postulates the structure and functions of a governmental organization [7] that would have oversight and licensing power over this area of medicine and science. The committee recommends that the authority have two functions: one executive and one advisory. The executive authority is to grant provider and researcher licenses, and to provide oversight to practitioners. The advisory function is to monitor changes in assisted reproductive technology [11] and embryology [9] and to provide recommendations and information to the public and the legislature when needed. This agency became the Human Fertilisation and Embryology Authority, or HEFA, in 1991. Chapter thirteen also prohibits the formation of an open free market for embryos and gametes.

Following the thirteenth full chapter, the report gave five lists of recommendations from the preceding text. The first of these lists, Section A, enumerates recommendations concerning the licensing body and its functions. The second list, Section B, concerns the principles of provisions, including anonymity and counseling services for third party donors. The third list, Section C, concerns service provisions, such as funding through the NHS and organizational restructuring. The fourth list, Section D, enumerates the recommendations concerning legal limits on research. Finally Section E outlines all the suggests legal changes.

Following the listed recommendations, there are appended three expressions of dissent. The first dissent, signed by committee members Wendy Greengross and David Davies, suggests that surrogacy should be allowed and licensed by the new authority, contrary to the main conclusion of the report on this matter detailed in chapter eight. The second and third dissents are about the use of human embryos in research. The first of these, dissent B, signed by committee members Madeline Carriline, John Marshall, and Jean Walker, argue that nothing
be done to impede the implantation of a fertilized embryo. It further argues that no experimentation on any human embryo ought to be permitted. The final expression of dissent argues that human embryos should not be created specifically for research, but that spare embryos left over from normal IVF protocols could be used for experimentation within the fourteen-day stipulation. This dissent was signed by committee members Scott Baker, Anthony Dyson, N. Edwards, and Wendy Greengross.

The Report of the Committee of Inquiry into Human Fertilisation and Embryology of 1984 helped define the laws and regulations in the UK concerning embryology and assisted reproductive technology. It is credited with the drafting of the Human Fertilisation and Embryology Act of 1990, which established the Human Fertilisation and Embryology Authority.

Sources


The Report of the Committee of Inquiry into Human Fertilisation and Embryology, commonly called the Warnock Report after the chair of the committee Mary Warnock, is the 1984 publication of a UK governmental inquiry into the social impacts of infertility treatment and embryological research. The birth of Louise Brown in 1978 in Oldham, UK, sparked debate about reproductive and embryological technologies. Brown was conceived through in vitro fertilization (IVF), a process of fertilization that occurs outside of the body of the woman. At the time IVF was largely unregulated in the UK, both in law and within the protocol of the National Health Service (NHS), headquartered in London, UK. The Warnock Report recommended, and is credited with, establishing a governmental organization to regulate infertility treatments such as IVF and embryological research in general. In 1990, the UK established this governmental organization as the Human Fertilisation and Embryology Authority (HFEA) in London.

Subject

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