Posthumous retrieval and use of gametes or embryos: an Ethics Committee opinion

Ethics Committee of the American Society for Reproductive Medicine

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Posthumous gamete (sperm or oocyte) retrieval or use for reproductive purposes is ethically justifiable if written documentation from the deceased authorizing the procedure is available. Retrieval of sperm or eggs does not commit a center to their later use for reproduction, but may be permissible under the circumstances outlined in this opinion. Embryo use is also justifiable with such documentation. In the absence of written documentation from the decedent, programs open to considering requests for posthumous use of embryos or gametes should only do so when such requests are initiated by the surviving spouse or partner. This document replaces the report of the same name, last published in 2012. (Fertil Steril® 2018;■:■–■. ©2018 by American Society for Reproductive Medicine.)

KEY POINTS

- Posthumous gamete (sperm or oocyte) retrieval or use for reproductive purposes is ethically justifiable if written documentation from the deceased authorizing the procedure is available. Retrieval does not commit a center to their later use for reproduction, however. Embryo use is also justifiable with such documentation.
- Programs are not ethically obligated to participate in posthumous assisted reproduction. Programs should develop written policies regarding the specific circumstances in which they will or will not participate in such activities.
- In the absence of written documentation from the decedent, programs open to considering requests for posthumous assisted reproduction should only do so when such requests are initiated by the surviving spouse or partner.
- It is very important to allow adequate time for grieving and counseling prior to and during any assistance with posthumous reproduction.
- Programs should be aware that state laws vary on whether posthumously conceived children are legally recognized as offspring of the deceased. State laws also may vary on the permissibility of posthumous retrieval or use of gametes or embryos. Clinics should be knowledgeable about and follow any applicable state laws, and should advise patients that they may wish to seek legal counsel regarding state laws that may affect their, and their offspring's, legal rights.

Assisted reproductive technologies facilitate pregnancy and childbirth by means other than those traditionally relied upon for family formation, including reproduction after the death of one or both of the gamete providers. In general, decisions concerning whether or not to have a child have been considered private and a fundamental right of individual adults. In part, this is because of the importance to individuals of having and rearing their own children. The case of posthumous reproduction, however, is different in a number of respects. First, the deceased obviously will not be able to rear the child. This raises the question of whether an individual can have an interest in reproducing, even when rearing is not possible, and further, whether such an interest ought to be respected. Conversely, the possibility of posthumous reproduction requires considering whether an individual can have an interest in not reproducing after his or her death. Additional ethical considerations include the choices or interests of the surviving spouse or partner who wants to reproduce using the deceased's gametes or embryos, of others who cared about the deceased (such as surviving parents), or of any potential offspring, as well as how these interests should be weighed against the interests of the deceased.

Received March 27, 2018; accepted April 2, 2018.

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Fertility and Sterility® Vol. ■, No. ■, ■ 2018 0015-0282/$36.00

https://doi.org/10.1016/j.fertnstert.2018.04.002

POSTHUMOUS INTERESTS

We begin with whether an individual's interests can ever be said to survive his or her death. It may seem that the

deceased (and perhaps even those in persistent vegetative states) no longer have any interests, since they cannot feel, think, or experience anything. With the permanent loss of these abilities, how, it may be asked, can they have a stake in anything? How can they be harmed or benefited? This approach presumes an experience-based account of interests, on which people who can no longer experience anything because of their deaths can no longer have interests. In other views, interests may persist after death. One account of these interests locates them in the choices of people while they are living about what will happen in the world after their deaths: people write wills and extract deathbed promises, for example, and thus have interests in these being carried out after their deaths. Another account is that people have critical or legacy interests in the continuation of important commitments and values that they had during their lives (1). From these views, at least some interests of individuals who have died are ethically significant and should continue to be taken into account after death (Feinberg1984).

INTERESTS REGARDING POSTHUMOUS REPRODUCTION

The creation of children posthumously is something about which most people may be expected to care. This suggests that individuals have interests in control over posthumous reproduction. Recognition of these interests is reflected in the fact that assisted reproduction programs have consent forms that stipulate the disposition of gametes and embryos after the death of one or both of the individuals who contributed the gametes or to the creation of the embryos.

A small number of studies have addressed attitudes toward posthumous use of gametes or embryos. One recent study of the general population found that significant majorities were unfamiliar with posthumous reproduction and that only about half supported the idea (2). Of those in support, a significant majority believed that the posthumous use of gametes is permissible only with prior informed consent (2). Predictors of support included younger age, higher education, higher income, Democratic political affiliation, and current attempts to conceive (2). Another survey study found that 70% of males and 58% of females would support their spouse's use of their gametes; however, the issue of prior consent was not addressed in this study (3).

Attitudes of patients seeking infertility treatment or sperm banking have also been studied. Studies assessing the attitudes of patients banking their sperm at one sperm bank prior to infertility or cancer treatment reported that the majority consented in writing to posthumous use (4). Similarly, the majority of patients presenting for assisted reproduction to a single center indicated that they would permit posthumous assisted reproduction (5).

Despite the interest that most people are likely to have in whether their offspring are brought into the world after their death, it has been argued that a right to reproduce posthumously can be said to exist only if posthumous reproduction implicates the same interests, values, and concerns that reproduction ordinarily entails (6). Such interests, values, and concerns would not exist on an experiential account of interests, because the experiences that give reproduction its meaning and importance to individuals are by definition unavailable in the case of posthumous reproduction. The dead cannot experience gestation or participate in rearing. The remaining interests are critical interests in such matters as the knowledge that a genetically related child might be born after the individual's death or that a partner might be able to raise a child conceived posthumously. Thus, it has been argued that this interest is "… so attenuated that it is not an important reproductive experience at all, and should not receive the high respect ordinarily granted core reproductive experiences when they collide with the interests of others" (6). This interest is not sufficiently attenuated, however, that it can be dismissed if a spouse or partner shares it. This situation contrasts with that of individuals with an interest in posthumous reproduction who die without an intended partner. In this case, the attenuation of the interests of the deceased is not mitigated by the shared aspiration of a surviving partner, and the case for posthumous use of gametes or embryos is far less compelling.

Some maintain that avoiding posthumous reproduction is parallel to reproducing posthumously. The deceased will not experience unwanted gestation or rearing. They will experience neither anxiety about the welfare of their offspring, nor fear that demands will be made on them. However, the interest in not having children after one's death is more than an interest in avoiding certain experiences (such as rearing or worrying about them). Rather, it is an interest, shared by many people, in avoiding having children that one will not be able to raise and nurture. Many people oppose bringing fatherless or motherless children into the world. If an individual has a strong preference of this sort, and has left explicit instructions forbidding the use of his or her gametes for posthumous reproduction, it would be wrong for these instructions to be ignored or discounted. The most challenging case concerns preserved embryos where the couple has left instructions that they were not to be used after their death but the surviving partner wishes to use them because they are now the survivor's only chance to have a biologically related child. In such cases, the wishes of the deceased are clear, and thus the deceased has an interest in not reproducing that outweighs the survivor's interest in having a biologically related child.

In some cases, especially outside of fertility programs, there may not be explicit or written evidence of the wishes of the deceased regarding posthumous reproduction. In these situations, providers may struggle to establish the desires of the decedent and are obligated to exercise more caution in complying with requests for utilization of cryopreserved gametes or for postmortem gamete harvest than when there is a clear record of the wishes of the deceased. Providers should not provide posthumous assisted reproduction if there is evidence that the deceased would not have wanted it. Moreover, the Committee discourages posthumous assisted reproduction unless there is clear evidence that it would have comported with the decedent's wishes.

IMPLICATIONS FOR INFERTILITY PROGRAMS

Using Cryopreserved Sperm, Oocytes, or Embryos with Prior Consent

Cryopreservation of sperm is a routine part of therapeutic donor insemination, enabling sperm banks to screen for infectious diseases. In addition, men who are concerned about the effect of recent or future occupational exposure to toxins may have their sperm cryopreserved for future use. Similarly, men about to undergo chemotherapy or radiation treatment for cancer may cryopreserve their sperm, in case the treatment leaves them sterile. Women too are increasingly cryopreserving oocytes before undergoing medical treatment or in the effort to preserve fertility as they age. Also, many couples cryopreserve embryos for use in future in vitro fertilization (IVF) treatment cycles. In most cases, men or women who cryopreserve their gametes or embryos expect to be alive when the materials are used. That is, they intend to be rearing parents. However, an individual may authorize the use of stored materials after death. Where explicit prior consent is given, are there any reasons to refuse to honor such a directive?

One concern may be for grieving survivors, who genuinely may not wish to have a child alone, but who feel compelled to carry out the wishes of their deceased partners. A related concern is that the survivor's decision-making may be clouded by grief. In all such cases, then, counseling should be offered. Moreover, it is strongly encouraged that programs allow adequate time for both counseling and the process of grieving to occur to ensure that the decision to have a child is the autonomous choice of the surviving partner (7). Clinical decision tools have been suggested as a method for providers to use in discussions with surviving partners (8).

Another concern is for the child, who would have only one parent and who might have been conceived under difficult circumstances (9). Some critics might argue that posthumous assisted reproduction violates the autonomy of the subsequent child. However, because the child would not have existed without the procedure, the concern cannot be that the child's choices were not respected in the decision to employ it. Rather, the concern is that the child might be raised in a situation that is difficult for him or her. The child might be pressured to be like the deceased, or be subjected to overwhelming grief on the part of the living. Or, the child might be saddened or otherwise psychologically affected by the knowledge that one parent died before birth. Without assisted reproduction, however, the child would not have existed at all; so one way to view these arguments is that they must show that the child's life circumstances are so unfortunate that it would have been better never to have been born.

Another way to view these arguments is that the potential for predictable and significant problems for the life the child will lead would make it ethically problematic to provide assisted reproduction. However, this is not a position that the Committee has taken in other ethics opinions. The Committee's basic position is that clinics may refuse to provide assisted reproduction if there are well grounded reasons for thinking that patients will be unable to provide minimally adequate or safe care for offspring (10). Factors such as having only one parent or that one of the parents may die while the child is young are insufficient to support this conclusion. Many women and men use assisted reproduction to have children without partners. If a clinic treats a single woman through donor insemination, or transfers a donor embryo to a gestational carrier on behalf of a single male or female, it is difficult to see the justification for refusal to use materials from a deceased person designated explicitly for that purpose. Clinics also use fertility treatment in circumstances in which it is foreseeable that one of the partners may die relatively soon from a life-limiting illness, and the Committee has supported this practice (11).

For arguments based on the welfare of the future child to be convincing, there would need to be clear evidence that children conceived through posthumous assisted reproduction suffer psychological damage that is significantly different and more serious than for children conceived through these other methods. Studies about the impact on children of the early death of a parent indicate that parental death is traumatic but that the negative consequences can be minimized by appropriate social support and provision of clear and honest information about the circumstances of the parent's death (12, 13). These studies may or may not be analogous to the situation of a child conceived through posthumous assisted reproduction, as they concern families in which the child him- or herself knew the deceased parent and thus experienced grief first hand, rather than vicariously through the experiences of others. Patients seeking posthumous assisted reproduction should be counseled about the issues they and their children may face and, as indicated above, providers should take care to ensure that patients are not being coerced or are so overwhelmed with grief that they are unable to consider thoughtfully their decision to undertake the procedure. However, in the judgment of the Committee, no current evidence suggests that the procedure is so different from other cases, and so likely to have damaging effects on the child, that it is ethically impermissible.

A couple who has surplus embryos frozen for later use may jointly decide that, in the event of the death of either of them, the survivor should be able, if he or she desires, to use the cryopreserved embryos to create a child or children through embryo transfer or a gestational carrier. This wish should be respected, although counseling should be offered to ensure that the survivor is making an autonomous choice to proceed with the reproductive efforts.

Since accidents are the most common cause of death in individuals of reproductive age (14), programs should ensure that the consent forms patients sign when cryopreserving sperm, oocytes, or embryos include specific directions regarding the use of their gametes or embryos after their death.

Should the Lack of a Written Directive Preclude the Surviving Partner from Extracting Gametes or Using Cryopreserved Gametes or Embryos?

Every consent form for gamete or embryo cryopreservation should address the specific disposition of embryos in the

event of death. In the absence of consent, it is not permissible to use gametes or embryos for research or to donate them to others (15).

However, when embryos were created for the purpose of allowing a couple to reproduce together, in the absence of a written directive prohibiting the use of cryopreserved embryos by the surviving partner, it seems reasonable to allow surviving partners to reproduce from embryos he or she helped to create for that purpose unless there is other evidence that indicates that this would have been opposed by the deceased.

The case of cryopreserved gametes lacking a written directive for disposition after death raises a more difficult issue, since surviving partners do not have the same claim to another's gametes as they have to embryos they helped to create. However, in some cases the act of cryopreserving the gametes suggests a joint reproductive desire, which can be brought to fulfillment by the surviving partner. In other cases, gametes may have been cryopreserved outside of the partners' relationship with one another. After death, where there is evidence that the deceased would still have wanted reproduction to occur, or at least would not have objected, it seems reasonable to allow the survivor to proceed. Granted, practitioners' good-faith efforts to carefully consider such cases will likely be constrained by reliance on second hand information.

The most difficult situation occurs when no gametes have been cryopreserved, which makes the determination of the existence of a joint reproductive desire more challenging. Moreover, extracting sperm or eggs after death involves an invasive procedure, to which some may object as a violation of bodily integrity, and may raise legal issues. Although the incidence of such situations involving infertility programs may be relatively low (16), it is worth exploring the ethics of removing sperm or eggs from the body of a dead or dying individual for the light it shines on the issue of consent. A complexity of such situations is that decisions to retrieve the gametes must be made quickly, whereas decisions about their use in reproduction may occur at a later time. Clinics should be aware that the decision to retrieve does not commit them to later reproductive use of the gametes which should take place after adequate time for grieving and counseling has occurred.

For example, a couple's plan to start a family may be thwarted by the sudden illness and death of one member of the couple (17). In such cases, there may be no time to obtain written authorization from the dying person regarding the retrieval and use of gametes after death. Should doctors comply with the partner's request that gametes be retrieved for reproductive purposes? Jurisdictions differ in whether the practice is legally permitted, with some having a decidedly pro natal approach and others regarding the retrieval as an impermissible violation of the body of the deceased (18).

Moreover, it may be argued that the only way to ensure that posthumous reproduction is consistent with the wishes of the deceased is to require written and informed consent. Without written consent, some argue, it is difficult to know what the deceased would have wanted. In some cases, the only evidence of their wishes will be the testimony of a person bearing an apparent conflict of interest, namely the one who wishes to use the deceased's sperm or eggs to reproduce. One may argue, though, that at least in the case of sudden, incapacitating illness or accident, there may be no time to obtain the deceased's written consent, much less to schedule a counseling session to consider the issue. The question then becomes how likely is it that the deceased would have agreed with the surviving partner's plan, if permission could have been sought? If the deceased would have supported, or at least had no objection to, the posthumous use of his or her gametes by the surviving partner, the insistence on prior written consent may seem unreasonable or even cruel. Some have argued that in such cases the clear interests of the living should take precedence over any interests of the deceased (19).

Such cases raise two issues for physicians. The first is whether a surviving partner's request for the removal of gametes from the deceased is one with which a physician could ethically and legally comply. The second is whether the gametes, once removed, could ethically be used by a physician to enable the surviving partner to reproduce. Although the issues are distinct, the ethics of complying in both cases turns on the determination of whether the deceased would have given permission, if it had been possible to seek it. Because this determination cannot be made with certainty in the absence of a written directive, it is reasonable to conclude that physicians are not ethically obligated to comply with either request from a surviving spouse or partner. On the other hand, it also seems reasonable to conclude that programs could ethically act on these requests. Regardless of the actual policy, physicians and programs should develop written guidelines to address all such scenarios before they arise to avoid emergency appeals for guidance to entities such as hospital ethics committees (20). In addition, programs should familiarize themselves with laws in their state, if any, regarding the retrieval and/or use of tissue for posthumous reproduction.

Providers may also wish to familiarize themselves with how the laws of their jurisdiction regard any posthumously conceived child, and may wish to advise patients to consider seeking counsel to discuss such legal issues as well. Jurisdictions vary on whether such children are legally recognized as offspring of the deceased and whether they are entitled to any benefits that depend on this legal status. The US Supreme Court has recently deferred to state law with respect to determination of these matters in a case in which the US Social Security Administration refused to authorize survivors' benefits for a posthumously conceived child who did not qualify to inherit from the deceased wage earner under state intestacy law (21).

The desire of a surviving partner to have a child with the gametes of the deceased, in light of their intention to have a family together, may be viewed with sympathy. A more troubling situation is when the request for gametes for posthumous reproduction does not come from a spouse or life partner, but from the parents of the deceased, who see this intervention as promulgating the legacy of their child or as the only way to become grandparents (22). Ethically, these situations are not comparable. In the case of a surviving parent, no joint reproductive effort can ever be said to have existed. Nor do the desires of the parents give them any ethical claim

to their child's gametes (22). In the absence of written instructions from the decedent, programs that are open to considering requests for posthumous gamete procurement or reproduction from surviving spouses or life partners should decline requests for such services from other individuals.

Acknowledgments: This report was developed by the Ethics Committee of the American Society for Reproductive Medicine as a service to its members and other practicing clinicians. While this document reflects the views of members of that Committee, it is not intended to be the only approved standard of practice or to dictate an exclusive course of treatment in all cases. This report was approved by the Ethics Committee of the American Society for Reproductive Medicine and the Board of Directors of the American Society for Reproductive Medicine.

This document was reviewed by ASRM members and their input was considered in the preparation of the final document. The following members of the ASRM Ethics Committee participated in the development of this document. All Committee members disclosed commercial and financial relationships with manufacturers or distributors of goods or services used to treat patients. Members of the Committee who were found to have conflicts of interest based on the relationships disclosed did not participate in the discussion or development of this document.

Judith Daar, J.D.; Jean Benward, M.S.W.; Lee Collins, J.D.; Joseph Davis, D.O.; Owen Davis, M.D.; Leslie Francis, Ph.D., J.D.; Elena Gates, M.D.; Elizabeth Ginsburg, M.D.; Sigal Klipstein, M.D.; Barbara Koenig, Ph.D.; Andrew La Barbera, Ph.D., H.C.L.D.; Laurence McCullough, Ph.D.; Richard Paulson, M.D.; Richard Reindollar, M.D.; Ginny Ryan, M.D.; Mark Sauer, M.D.; Rebecca Sokol, M.D., M.P.H.; Sean Tipton, M.A.; Lynn Westphal, M.D.

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