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Surrogacy and uterus transplantation using live donors: Examining the options from the perspective of ‘womb-givers’

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Abstract

For females without a functioning womb, the only way to become a biological parent is via assisted gestation—either surrogacy or uterus transplantation (UTx). This paper examines the comparative impact of these options on two types of putative ‘womb-givers’: people who provide gestational surrogacy and those who donate their uterus for live donation. The surrogate ‘leases’ their womb for the gestational period, while the UTx donor donates their womb permanently via hysterectomy. Both enterprises involve a significant degree of self-sacrifice and medical risk in order to enable another person(s) to become a parent by either providing gestational labour or enabling the other person to undertake gestation themselves. In this paper, we explore the burdens and the benefits from the perspective of the womb-giver in order to inform ethical debate about assisted gestation. This is a perspective that is often neglected in the bioethical discourse. With both surrogacy and UTx, when success follows the womb-giver’s sacrifice, the key benefit is delivered to the intending parent(s), but as this article examines, the womb-giver may also enjoy some unique (relational) benefits as a result of their sacrifice. Ultimately, the choice of how a womb-giver lends assistance in gestation will impact on their bodily autonomy; some will prefer to carry a pregnancy and others to donate their uterus. We argue that the perspective of the womb-giver is crucial and thus far has not been afforded sufficient consideration in ethical discussion.

KEYWORDS

assisted gestation, live uterus donation, surrogacy

1 | INTRODUCTION

Absolute uterine factor infertility (AUI) is estimated to affect approximately 1 in 500 females globally.¹ Without a functioning womb, this group is unable to gestate and are consequently reliant on some form of assisted gestation—either by arranging a surrogate to

gestate for them, or by undergoing a uterus transplantation—if they hope to experience genetic parenthood.

While the ethico-legal issues raised by both surrogacy and uterus transplantation using live donors (UTx) have been much discussed,²

¹O'Donovan, L., Williams, N. J., & Wilkinson, S. (2019). Ethical and policy issues raised by uterus transplantation. *British Medical Bulletin*, 131(1), 19–28.

²For example, see, Sheldon, S., & Horsey, K. (2012). Still hazy after all these years; The law regulating surrogacy. *Medical Law Review*, 20(1), 67–89; Alghrani, A. (2018). *Regulating assisted reproductive technologies: New horizons*. Cambridge University Press.

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this paper develops the debate by closely examining the comparative burdens and benefits from the perspective of the person³ who shares their womb; the *womb-giver*.⁴ Although deceased donation in UTx may facilitate a successful pregnancy, evidence suggests that live donation is more likely to result in a live birth.⁵ There is also a problem with the availability of suitable uteruses from the deceased and so, despite the ethical preference for deceased donation,⁶ a 'needs must' approach seems to be driving the ongoing reliance on live donors.⁷

A significant focus of the UTx debate has been the right to gestate, and/or whether the alternatives, particularly surrogacy, might be ethically preferable.⁸ A person suffering from AUF1 might see UTx as preferable to surrogacy because, when successful, it enables gestation and immediate, automatic legal parenthood. For live donation UTx, while a third-party donor is essential, they are not directly involved in the reproductive process once the donation is completed, allowing the intending parent(s) to continue their family building independently, which is not the case in surrogacy.

In the UK both surrogacy and live donation for UTx are legally permissible as an act of altruism, where one person 'shares' their uterus for gestation or donates their uterus to help another. With surrogacy, concern over the exploitation of the surrogate has shaped the debate and the legal response, and in some jurisdictions this concern, together with moral distaste over the commodification of childbearing, has led to prohibition.⁹

Both UTx and surrogacy are potentially harmful to the womb-giver (WG), either because they risk their health during a pregnancy and childbirth and may be exploited as a surrogate, or because they risk their health donating a uterus. Both options, however, might also deliver specific benefits to the womb-giver that are important to them and which justify the sacrifice and associated risks. Little attention has been paid to the benefits for the WG in the literature and this paper seeks to address this gap. Moreover, paternalistic arguments seeking to safeguard the putative womb-seeker and WG may crumble if we believe that respecting individual autonomy is

essential. While for the intending parent(s) this is a matter of respecting their reproductive autonomy in choosing the kind of assisted gestation they prefer, for the WG the issue is primarily one of respect for bodily autonomy, in the sense of allowing them to make choices about assisted gestation.

First, we set out the current UK legal position and the practical steps involved in surrogacy and UTx, before we consider the altruistic paradigm and the associated ethical implications. Although UTx is not yet available as a treatment in the UK,¹⁰ for the purposes of this discussion we assume that it will become an accepted treatment for AUF1 so that eventually there might be a meaningful choice between surrogacy and UTx.

We then examine the risks and benefits attached to each experience starting from the perspective of the potential WG. In order to evaluate the anticipated benefits and burdens of the respective processes, we ask the reader to consider a hypothetical scenario that illustrates how the risk assessment might direct the choice between UTx and surrogacy. We will not consider the significant obstacles for intending parents—the practicalities of access and cost for both options—except where this is relevant in considering the comparative experiences of the WGs in these scenarios. Our examination and evaluation of these issues from the WG's perspective, and in a manner that is not wholly focused on the *burdens* of being a surrogate or a uterus donor, develops the bioethical discourse on assisted gestation.

2 | SURROGACY AND UTx

Both surrogacy and UTx require the WG to consent to the womb-share, and then to undergo a series of medical interventions in order to enable the intending parent(s) to achieve their objective. Finding a definitive answer to the question of whether surrogacy or donating a uterus is more burdensome for the WG is impossible, because it will depend upon the subjective experience of each individual. However, we can theoretically assess the burdens, risks and benefits that impact on surrogates and uterus donors based on what is already known about both experiences. We approach this exercise by considering the processes and interventions that participants will experience, and the associated risks and benefits for them.

2.1 | Surrogacy

An intending parent considering surrogacy will generally seek a stranger willing to act as a surrogate in exchange for payment (expenses), although surrogacy may be arranged within families or between friends. In the UK, the accepted approach is founded on

³We use the term 'person' as an inclusive term to describe the individual sharing their womb. The term 'woman' is both too narrow and too broad to describe those with the physiology to carry a pregnancy: Ross, L., & Solinger, J. (2017). *Reproductive justice*. California University Press, p. 8.

⁴We have adopted the term 'womb-giver' for people who both offer their services as a gestational surrogate and those who donate their womb via UTx. We recognize that this term could have problematic connotations when discussing surrogacy because the womb is retained; however, we found that this was the most adequate term that encompassed both people temporarily 'leasing' their womb and those donating their womb for the purposes of our discussion.

⁵Olausson, M. (2020). Live or deceased uterus donation. In M. Brannstrom (Ed.), *Uterus transplantation* (pp. 79–82). Springer.

⁶See for example, Williams, N. J. (2016). Should deceased donation be morally preferred in uterine transplantation trials? *Bioethics*, 30(6), 415–424.

⁷Ibid, and see also, Kvarnstrom, N., Enskog, A., Dahm-Kähler, P., & Brännström, M. (2019). Live versus deceased donation in uterus transplantation. *Fertility and Sterility*, 112(1), 24–27.

⁸For example, see; O'Donovan et al., op. cit. note 1; Lotz, M. (2018). Uterus transplantation as radical reproduction: Taking the adoption alternative more seriously. *Bioethics*, 32(8), 499–508; Testa, G., Koon, E. C., & Johannesson, L. (2017). Living donor uterus transplantation and surrogacy: Ethical analysis according to the principle of equipoise. *American Journal of Transplantation*, 17(4), 912–916.

⁹For example, Sweden and Italy.

¹⁰At the time of writing UTx is in the research phase and so is possible only for those accepted onto the clinical trial. The research is led by Mr Richard Smith at the Lister Hospital, Chelsea, and Imperial College, London, and supported by Womb Transplant UK. See Womb Transplant UK. (n.d.). <https://wombtransplantuk.org/about>



altruistic rather than commercial surrogacy, although it is now lawful for surrogacy organizations to recover the cost of helping to negotiate agreements between surrogates and intending parents.¹¹ Regardless of whether the surrogate is a sister or a stranger, only 'reasonable expenses'¹² may be paid to compensate expenses incurred as a result of the pregnancy.¹³ Surrogacy might be either 'gestational', where the surrogate is implanted with an embryo that is not related to them, or 'genetic', where the surrogate's eggs are used. In gestational surrogacy, the surrogate must undergo an invasive procedure to have the embryo implanted and if this is not immediately successful, they might experience this more than once. If the surrogate has agreed to use their own eggs, the path to pregnancy via artificial insemination is less burdensome than embryo implantation, though it remains invasive.

Both arrangements are lawful subject to some restrictions.¹⁴ Surrogacy agreements, however, are not contractually binding, and so neither the surrogate nor the intending parent(s) is legally bound to fulfil their part of the arrangement. Once the child is born, the surrogate is the legal mother until they surrender parental rights,¹⁵ usually via a parental order but otherwise via adoption.¹⁶ Legislation on surrogacy varies between countries, in part due to the fact that it is considered an ethically controversial practice, and where it is allowed it is usually in its altruistic rather than commercial variant.¹⁷

Two of the most prominent ethical objections to surrogacy are the so-called exploitation and commodification arguments.¹⁸ The commodification argument states that surrogacy is immoral as it entails inappropriate commodification of the surrogate's reproductive capacities and the process of gestation and birth.¹⁹ Commercial surrogacy is considered particularly problematic as there is a worry that paying for the services of a surrogate in this way amounts to baby selling. The exploitation objection stipulates that surrogacy can be exploitative in different ways for those who perform it, inherently or situationally.²⁰ While both these worries seem somewhat diminished

in the context of altruistic surrogacy, the issue of exploitation remains relevant and will be discussed later in this paper.

2.2 | UTx

Following the first live birth after live uterus donation in Sweden,²¹ several other countries have reported successful cases after live donation and, more recently, deceased donation has also proved successful in several countries.²² Thus far, all the live donations have involved the intending parent(s) sourcing their own donor. In Sweden, for example, close female relatives (usually mothers) or relatives by marriage (mother-in-law) to the recipients provided the donated organs.²³ In one sense this might be seen to fit within accepted frameworks for the altruistic gifting of an organ to save or help an afflicted individual.²⁴ In their comparative analysis of (commercial) surrogacy and UTx, Kroløkke and Peterson suggest that the altruistic paradigm may be inadequate in explaining the 'bio-intimate encounter' involved in UTx.²⁵ Our examination also shows that while altruism is the central theme, other relational factors influence the experience.

Presuming that the potential donor is a close relative or friend of the intending parent(s), the possibility of UTx might first be raised as an abstract possibility within the family/social group before any role for the donor is considered. The first ethical issue emerges when the prospective WG is asked to donate their uterus. Ordinarily, consent to live organ donation in the UK is regulated by the Human Tissue Authority (HTA).²⁶ The role of the HTA is to ensure that consent is freely given, with no duress, coercion or payment, which would compromise consent. The risks of consent in this context, however, are not a new phenomenon as live organ donation is well established and usually—for example, with live kidney donation—the *gift* will come from a relative of the recipient.²⁷ Nevertheless, there are arguably significant differences between donating a kidney and donating a womb. Donating a kidney is often lifesaving or significantly life-enhancing for the recipient. The discomfort the donor endures is

¹¹The Surrogacy Arrangements Act 1985 forbade commercial surrogacy, though an amendment to this Act provided by the Human Fertilisation and Embryology Act 2008, made it permissible for non-profit organizations to recover costs and receive reasonable payment for negotiating a surrogacy agreement.

¹²COTS, one of the UK's surrogacy organizations states that reasonable expenses will be in the region of £12,000 to £15,000. See: COTS; Childlessness Overcome Through Surrogacy. (n.d.). <https://www.surrogacy.org.uk/surrogates>

¹³For example see *Re L (A Minor)* [2010] EWHC 3146 Fam.

¹⁴See: Surrogacy Arrangements Act 1985, Human Fertilisation and Embryology Acts 1990 and 2008.

¹⁵Section 27 HFE Act 1990; S.33 HFE Act 2008.

¹⁶See section 54 HFE Act 2008 re Parental Orders.

¹⁷Igareda González, N. (2019). Regulating surrogacy in Europe: Common problems, diverse national laws. *European Journal of Women's Studies*, 26(4), 435–446.

¹⁸Law Commissions of England and Wales and the Scottish Law Commission. (2019). *Building families through surrogacy: A new law. A joint consultation paper*. <https://s3-eu-west-2.amazonaws.com/lawcom-prod-storage-11jsxou24uy7q/uploads/2019/06/Surrogacy-consultation-paper.pdf>

¹⁹Anderson, E. (1990). Is women's labor a commodity? *Philosophy and Public Affairs*, 19(1), 71–92.

²⁰Stuvøy, I. (2018). Troublesome reproduction: surrogacy under scrutiny. *Reproductive Biomedicine & Society Online*, 7, 33–43.

²¹Olausson, op. cit. note 5.

²²For example see; Ejzenburg, D., Andraus, W., Mendes, L., & Ducatti, L. (2018). Livebirth after uterus transplantation from a deceased donor in a recipient with uterine infertility. *The Lancet*, 392(10165), 2697–2704; Fronik, J., Kristek, J., Chlupac, J., Janousek, L., & Olausson, M. (2021). Human uterus transplantation from living and deceased donors: The interim results of the first ten cases from the Czech trial. *Journal of Clinical Medicine*, 10, 586; Flyckt, R., Falcone, T., Quintini, C., Perni, U., Eghtesad, B., Richards, E. G., Farrell, R. M., Hashimoto, K., Miller, C., Ricci, S., Ferrando, C. A., D'Amico, G., Maikhor, S., Priebe, D., Chiesa-Vottero, A., Heerema-McKenney, A., Mawhorter, S., Feldman, M. K., & Tzakis, A. (2020). First birth from a deceased donor uterus in the United States; From severe graft rejection to successful cesarean delivery. *American Journal of Obstetrics and Gynecology*, 223(2), 143–151.

²³Olausson, op. cit. note 5.

²⁴Steinberg, D. (2010). Altruism in medicine: Its definition, nature, and dilemmas. *Cambridge Quarterly of Healthcare Ethics*, 19(2), 249–257.

²⁵Kroløkke, C., & Peterson, M. N. (2017). Keeping it in the family: Debating the bio-intimacy of uterine transplants and commercial surrogacy. In R. M. Shaw (Ed.), *Bioethics beyond altruism*. Palgrave Macmillan.

²⁶The Human Tissue Act 2004.

²⁷Brazier, M., & Cave, E. (2016). *Medicine, patients and the law*. Manchester University Press, p. 523.

likely to be justifiable because it allows them to continue a relationship with their loved one. However, a uterus transplant, as a 'lifestyle transplant',²⁸ is more ethically controversial. Donating a kidney is also a routine, and less risky surgical procedure for the donor, which makes the practice less ethically controversial than UTx. Closer attention may, therefore, have to be paid to the risk that consent is (unintentionally or not) the result of undue influence.

Once it is established that consent is informed, voluntary and uncoerced, the second issue emerges with the interventions required to remove the uterus. If the donor is approved as a clinically suitable candidate to donate their uterus, the surgery to extract the organ can go ahead. Where donors are post-menopausal, hormone replacement treatment is necessary for 3 months prior to surgery in order to ensure endometrial thickening in a menstrual cycle and reverse any potential arterial changes.²⁹ Essentially, the removal of the uterus is a form of hysterectomy, which makes it a highly invasive surgery, characterized by Williams as 'necessarily harmful'.³⁰ Because the organ is being 'harvested' for subsequent use, rather than simply removed, the surgery is more complex and risky than a hysterectomy performed for clinical reasons. It is notable that all successful UTx procedures to date have been performed as open surgeries rather than using minimally invasive techniques.³¹

2.3 | Noting the distinction between surrogacy and UTx

For the womb-seeker³² there may be reasons, related to their reproductive autonomy and the choices they want to make about *how* to reproduce, why surrogacy and UTx are not alternatives. Even if the outcome (a biologically related child) is the same, UTx allows the womb-seeker to gestate and surrogacy does not. We know that, for some prospective mothers, this is significant, and we agree with O'Donovan that we ought to respect the autonomy of a person wishing to do this.³³ However, in this paper we are focussing on the experiences of the donor. Whilst the womb-seeker's choices about surrogacy

versus UTx might be characterized as a matter of reproductive autonomy, we suggest that the situation from the womb-donor's perspective is actually a matter of bodily autonomy. In deciding *how* they want to assist by sharing or giving their womb, a person is deciding on *how* they use their *body* to assist. Sometimes there is a tendency to misconstrue decisions during pregnancy or about the womb (for example, about childbirth) as reproductive decisions when they must first and foremost be recognized as decisions about a person's bodily boundaries.³⁴ Furthermore, in many instances, assisted gestation will not involve the contribution of gametes from the person assisting and we might take it that, from the perspective of the person assisting, they would not necessarily consider this a *reproductive* decision. Indeed, they are far more likely to be preoccupied with bodily consequences when deciding whether to assist.

Some people might be happy to donate their uterus because they would prefer not to have it, or are not concerned about keeping it. They might prefer the risks associated with the hysterectomy over the perceived burden of pregnancy. Others might prefer to keep their womb and experience pregnancy. While for the womb-seeker UTx and surrogacy are very different, to a WG they might seem like alternatives to be weighed.

In reality, most people (whether intended parents or WGs) are not in a position to conduct a comparative ethical analysis of UTx versus surrogacy. In the UK, although surrogacy is permitted, it may be beyond the financial means of many intending parents. Similarly, UTx is not yet available unless one is fortunate enough to be accepted on the trial. If and when it becomes available, we do not know if it will be publicly funded. If the trial is successful and subsequently UTx is funded by the state, there will be a genuine choice to seek UTx. Finally, even if both options were available the WG might feel limited in their choices by what is specifically asked of them by putative parents. In the next section, in order to examine how intending parent(s) and a putative WG might consider the respective burdens and benefits of surrogacy and UTx, we consider a hypothetical case involving a decision between these two options.

3 | CHOOSING BETWEEN SURROGACY AND UTx

Consider the following scenario involving two sisters, Ali and Bea:

Ali has AUI, though she has ova and it is her wish to use these to become a biological parent. Her partner, Charlie, has a good sperm count. Ali's older sister Bea, who is supporting Ali in her attempt to become a parent, has offered to help Ali by either donating her uterus or acting as a surrogate. Bea is 38 and has two children, aged 10 and 14. She is sure that her family is

²⁸Williams, N. (2019). 'Transferring the womb: The rights and responsibilities of stakeholders.' Reconciling the womb,' Reconciling the womb in medicine, law and society (Institute of Medical Ethics Funded) University of Manchester, November 4, 2019.

²⁹Brucker, S. (2018). Selecting living donors for uterus transplantation: Lessons learned from two transplantations resulting in menstrual functionality and another attempt, aborted after organ retrieval. *Archives of Gynecology and Obstetrics*, 297, 675–681.

³⁰Williams, op. cit. note 6.

³¹Brännström, M., Dahm Kähler, P., Greite, R., Mölne, J., Díaz-García, C., & Tullius, S. G. (2018). Uterus transplantation: A rapidly expanding field. *Transplantation*, 102(4), 569–577. Although we note that laparoscopic-assisted uterus donor retrieval is currently being researched and has been deemed feasible, see Puntambekar, S., Telang, M., Kulkarni, P., Puntambekar, S., Jadhav, S., Panse, M., Sathe, R., Agarkhedkar, N., Warty, N., Kade, S., Manchekar, M., Parekh, H., Parikh, K., Desai, R., Mehta, M., Chitale, M., Kinholkar, B., Jana, J. S., Pare, A., ... Phadke, U. (2018). Laparoscopic-assisted uterus donor retrieval from live donors for uterine transplantation: Our experience of two patients. *The Journal of Minimally Invasive Gynecology*, 25(4), 622–631.

³²We use the term womb-seeker for someone who needs access to another person's womb for the purposes of gestation.

³³O'Donovan, L. (2018). Pushing the boundaries: Uterine transplantation and the limits of reproductive autonomy. *Bioethics*, 32(8), 489–498.

³⁴See: Romanis, E. C. (2020). Addressing rising cesarean rates: Maternal request cesareans, defensive practice, and the power of choice in childbirth. *International Journal of Feminist Approaches to Bioethics*, 13, 1–26, p. 11.



complete. For the purposes of the scenario, we assume that neither Ali nor Bea has any strong preferences regarding which form of assisted gestation is appropriate for them. Faced with both options, the sisters decide to consider both possibilities in order to be sure that they are choosing the least harmful option for Bea.

3.1 | Surrogacy

Gestational surrogacy is often a far longer process than the pregnancy itself (on average around 24 months).³⁵ It involves the physical and psychological risks of assisted conception treatments,³⁶ and in some cases failed pregnancies and difficult births.³⁷

As Ali's wish is to have a genetically related child, and as she has ova despite not possessing a functional womb, Bea will need to be implanted with an embryo created via IVF from Ali's eggs and Charlie's sperm. As Bea has had children, we may assume that she should not have issues with the implantation of the embryo; however, it should be noted that Bea's last pregnancy took place 10 years ago and her ability to carry a pregnancy might have diminished with age. If Bea does not conceive on the first attempt, the embryo transfer will need to be repeated, implying more invasive procedures for her and more costs for Ali. In addition, as a result of her age there may be some age-based restrictions on her access to IVF where publicly funded.³⁸ This may place an additional psychological burden on Bea in hoping that the process is quickly successful to reduce the emotional and financial burden on her sister.

Once the pregnancy is established, Bea will be subject to all the usual risks of pregnancy and childbirth. Pregnancy can be difficult for some people; it means sharing bodily resources with the foetus for a significant period of time, experiencing hormonal changes, and difficult symptoms including morning sickness, swollen limbs and limited mobility. Moreover, a pregnant person may be unable to live their life as normal and may feel that they are treated differently by others. Complications might arise that are even more difficult, including preeclampsia, gestational diabetes and uterine infections. The likelihood of a more complex pregnancy also increases with age.³⁹ It is likely that Bea's pregnancy will be closely monitored as

several people will be invested in it, and attending the prenatal checks will likely present bonding opportunities not only for Ali, Charlie and their future child, but also for Ali and Bea and finally, Bea and the future nephew/niece. However, if something goes wrong during the pregnancy, the stress for Bea may be exacerbated by the involvement of several parties. Childbirth is also not without risk of serious injury. Vaginal delivery (that is often assisted) is associated with tearing, pelvic floor injury and/or incontinence.⁴⁰ Complications during a caesarean delivery can result in hysterectomy, serious haemorrhage and infection.⁴¹ No childbirth is free of the risk of mortality.

A crucial ethical reservation concerning surrogacy is the potential exploitation of the surrogate. Exploitation can manifest in different ways, but in general can be defined as taking unfair advantage of another.⁴² Unfair payment for gestational 'work', especially in the context of the risks of pregnancy, is one such risk. In addition to the physical risks of pregnancy and childbirth, there is also a risk of the potentially autonomy-limiting impact of carrying a pregnancy on behalf of another person or persons. The relationship between a surrogate and intending parent(s) is complex, but often valued by both parties,⁴³ and gestational surrogates often report feeling very aware of their role as 'loving babysitters' or similar.⁴⁴ It is not hard to see, therefore, how some surrogates might feel pressured into agreeing to particular requests from intended parent(s), ranging from changing dietary habits to consenting to medical interventions. This is particularly likely where the surrogate has a close personal relationship with the intending parent(s).

These considerations are linked to another exploitation-related worry, namely that the consent of surrogates may be invalid as they are not in a position to make an informed autonomous decision about participating. A key element of exploitation in surrogacy, on Wilkinson's account, comes from the surrogate's consent to participate being invalid.⁴⁵ Factors that can invalidate consent include coercion, lack of adequate information or the surrogate's autonomy being compromised, for instance by their poor social position.⁴⁶ This is usually a more prominent concern where arrangements are handled by agencies and involve strangers, but could also be exacerbated where the surrogate is a close friend or family member of the intended parent(s), as Bea is to Ali, and may therefore feel a pressure

³⁵Brilliant Beginnings (n.d.). <https://www.brilliantbeginnings.co.uk/surrogates/emotional-and-health-implications-of-being-a-surrogate>

³⁶Associated risks include ectopic pregnancy, or adverse reaction to medications taken during the process. See: NHS. (n.d.). <https://www.nhs.uk/conditions/ivf/risks/>

³⁷IVF is associated with a greater risk of preterm birth: Sunkara, S., La Marca, A., Seed, P. T., & Khalaf, Y. (2015). Increased risk of preterm birth and low birthweight with a very high number of oocytes following IVF: An analysis of 65869 singleton live birth outcomes. *Human Reproduction*, 30, 1473–1480.

³⁸Women aged 37 to 39 years in the first and second full IVF cycles should also have single embryo transfer if there are 1 or more top-quality embryos, and double embryo transfer should only be considered if there are no top-quality embryos. In the third cycle, no more than 2 embryos should be transferred." NHS. (n.d.). <https://www.nhs.uk/conditions/ivf/what-happens/>; we note here, however, that intended parent(s) are often willing to pay for private treatment.

³⁹Clarey-Goldman, J., Malone, F. D., Vidaver, J., Ball, R. H., Nyberg, D. A., Comstock, C. H., Saade, G. R., Eddleman, K. A., Klugman, S., Dugoff, L., Timor-Tritsch, I. E., Craigo, S. D., Carr, S. R., Wolfe, H. M., Bianchi, D. W., D'Alton, M., & FASTER Consortium. (2005). Impact of maternal age on obstetric outcome. *Obstetrics & Gynecology*, 105, 983–990.

⁴⁰Miesnik, S., & Reale, B. (2007). A review of issues surrounding medically elective caesarean delivery. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 36, 605–615.

⁴¹National Institute for Health and Care Excellence. (2011). Information for the public; caesarean section. <https://www.nice.org.uk/guidance/cg132>

⁴²Wilkinson, S. (2003). The exploitation argument against commercial surrogacy. *Bioethics*, 19(2), 169–187.

⁴³MacCallum, F., Lycett, E., Murray, C., Jadv, V., & Golombok, S. (2003). Surrogacy: The experience of commissioning couples. *Human Reproduction*, 18, 1334–1342; Weiss, C. (2017). *Reproductive migrations: Surrogacy workers and stratified reproduction in St Petersburg* (PhD thesis). De Montfort University, Leicester, p. 46. <https://www.dora.dmu.ac.uk/bitstream/handle/2086/15036/PhD%20Thesis.%20Weis.%20Reproductive%20Migrations.%20Final%20Version.Dec%202017.pdf?sequence=1&isAllowed=y>

⁴⁴Berend, Z. (2016). "We are all carrying someone else's child!": Relatedness and relationships in third-party reproduction. *American Anthropologist*, 118, 24–36, p. 29.

⁴⁵Wilkinson, op. cit. note 42, p. 173.

⁴⁶Ibid.

to become a surrogate even if this might present a risk to their health and well-being.

When it comes to the later stages of pregnancy and delivery, Bea might be inclined to consent to invasive procedures out of caution and concern for Ali. Depending on Ali's fears and wishes, it could also mean that Bea refuses certain procedures, or that she doesn't raise the possibility of a caesarean, which could result in negative consequences for both the baby and her health. If there are complications during the pregnancy or childbirth it could result in Bea blaming herself, and there are also potential long-term risks to her health as with any pregnancy. There is also a substantial amount of emotional labour involved in the undertaking of pregnancy,⁴⁷ but also specific to the surrogacy context.⁴⁸

Social aspects of the process might also be uncomfortable. There is a sense in which a pregnancy may feel 'publicly owned'.⁴⁹ Strangers, colleagues and friends might ask personal questions about a pregnancy, and Bea might find these more difficult to answer as a gestational surrogate. We do not suggest that she should find such social interactions uncomfortable, nor do we suggest that this interference is appropriate, but it is important to note as a likely reality in her experience of surrogacy. A further psychological concern is that Bea may (though not necessarily) experience some emotional pain upon handing over the baby immediately after birth. In some cases surrogates change their mind and refuse to give the child to the intending parent(s),⁵⁰ and as the legal mother the surrogate has the law on their side.⁵¹ The risk of the surrogate changing her mind may be less significant in a family arrangement, although the ongoing relationship between the surrogate and (grateful) parent(s) within a family will be subject to challenges posed by their relationship and as a result of the surrogacy, which may bring additional or different pressures compared to those experienced by unrelated surrogates.⁵²

Having considered the main burdens and risks that might befall Bea, it is essential to discuss the benefits too. There are potentially great psychological benefits from the knowledge that she has helped her sister and played such an important role in the bringing of this

baby to life. Since Bea has experienced pregnancy before, she knows what to expect and she might have enjoyed aspects of pregnancy.

Bea will also be able to anticipate forming a loving relationship with the child, who will also be a cousin to her own children, thus benefitting Bea's immediate family. Since most surrogates are not related to the intending parent(s), the family and psychological benefits associated with the close bond between Ali and Bea will not usually be present. Presumably, however, there would be some altruistic reward for a surrogate who helps another to achieve their dream of parenthood, and it is possible that there might be an ongoing and positive relationship of some kind between the surrogate and the family that she helped to create.

Assuming that Bea would need to forego working for some of the pregnancy and for a short time afterwards during her recovery, we would expect that Ali would cover Bea's loss of earnings and also any expenses associated with the pregnancy, such as maternity clothing or expenses for travelling to medical appointments. The relationship between Bea and Ali means that we might assume that Bea would be mindful about limiting such expenses, but hopefully Bea's finances should not be adversely affected by the pregnancy. Since most surrogates are not related to the intending parent(s), the financial implications for some surrogates may be more beneficial than for Bea. The ethos of legitimate surrogacy in the UK is rooted in altruism, yet in reality it seems likely that many surrogates have *also*—or in some instances *primarily*—been motivated by the financial rewards, despite the limitations on what is permissible. This has led to the concern that surrogates are exploited, and especially that women living on a very low income may be induced by payment.⁵³ One of the leading not-for-profit surrogacy agencies, 'Surrogacy UK', however, claims (based on empirical research with participants of surrogacy arrangements) that the primary motivation for surrogates is sympathy for infertile people, or the enjoyment of pregnancy.⁵⁴ They also state that friendships between the surrogate and the intending parent(s) are often formed, suggesting that gaining new friends maybe a further benefit of surrogacy.

3.2 | UTx

For a donor who has reached or passed the menopause, a pre-operative hormone treatment to optimize the condition of the womb would be required, which, while offering some benefits,⁵⁵ can expose individuals to increased risk of stroke and blood clots.⁵⁶ However, because of Bea's age—we are assuming she is

⁴⁷Neiterman argues that pregnant people 'are expected to "do" pregnancy, actively performing socially established practices that signify the status of the body as pregnant... [including] constant performing of pregnancy (ensuring that the process of "doing pregnancy" is acknowledged and approved by others)'; see Neiterman, E. (2012). *Doing pregnancy: Pregnant embodiment as performance. Women's Studies International Forum*, 35, 372–373, p. 372.

⁴⁸For instance, in their study of the experiences of altruistic surrogates in Australia, Canada and the United States, Toledano and Zeiler have found that surrogates report a heightened sense of responsibility due to the 'high stakes' of the pregnancy, leading to monitoring their bodies and behaviour quite strictly, as well as the need for 'boundary-setting' in their personal life. See Toledano, S. J., & Zeiler, K. (2017). *Hosting the others' child? Relational work and embodied responsibility in altruistic surrogate motherhood. Feminist Theory*, 18(2), 159–175.

⁴⁹This can manifest in lots of different ways including for example lots of public scrutiny and 'advice giving': See: Longhurst, R. R. (2005). *Pregnant bodies, public scrutiny: 'Giving' advice to pregnant women*. In E. Kenworthy Teather (Ed.), *Embodied geographies: Spaces, bodies and rites of passage* (pp. 77–90). Routledge.

⁵⁰*Re M (Child)* [2017] EWCA Civ 228.

⁵¹S.33 (1) of the Human Fertilisation and Embryology Act 2008 specifies that 'a woman who is carrying or has carried a child as a result of the placing in her of an embryo of sperm and eggs, and no other woman, is to be treated as the mother of the child'.

⁵²We are grateful to an anonymous reviewer for raising this point.

⁵³McEwen, A. (1999). So you're having another woman's baby: Economics and exploitation in gestational surrogacy. *Vanderbilt Journal of Transnational Law*, 32(1), 271–304.

⁵⁴See Surrogacy UK. (n.d.). FAQs: <https://surrogacyuk.org/faqs/>

⁵⁵Including reducing the risk of osteoporosis and related injuries: Nelson, H., Humphrey, L. L., Nygren, P., Teutsch, S. M., & Allan, J. D. (2002). Postmenopausal hormone replacement therapy: Scientific review. *Journal of the American Medical Association*, 288, 872–881.

⁵⁶*Ibid*: 878. We note that trials so far (e.g. Sweden) suggest that most donors are older than Bea and so would need hormone treatment, with the associated risks.

pre-menopausal—she should not need to undergo hormone treatment prior to donation.

The risks of hysterectomy are well known since it is a common procedure.⁵⁷ However, this data relates only to women who needed a hysterectomy for medical reasons, and we have noted that a womb removal for UTx is a more complex (and—at present—a necessarily open⁵⁸) procedure. Consequently, the operation takes approximately 5.5 hr or more.⁵⁹ Bruno and Arora have identified the key risks involved in UTx and note that, aside from the usual risks of surgery (infection, reaction to anaesthetic, transfusion), there are risks of haemorrhage, ureteral injury, bladder, bowel and intestinal injury.⁶⁰ Although no donor has died, serious complications requiring subsequent surgery have been reported.⁶¹ Additionally, there is likely to be a significant amount of pain and a lengthy recovery period, during which Bea will need to be cared for by a person other than Ali, as she will also be recovering from surgery. Assuming the surgery goes well, the average hospital stay after the procedure is 6 days,⁶² and it might be difficult for Bea to be away from her family for that time. Bea will also need time off work and have to attend ongoing medical assessments in the post-operative period. It usually takes 6 to 8 weeks to recover from an abdominal hysterectomy.⁶³ This will vary according to age and health, but it is possible that, since the UTx extraction is more complex, the after-effects, including the level of pain and the recovery time, might be more significant. During the weeks and months after the surgery, Bea must also be prepared to endure other restrictions to her usual life; she may not be able to drive, have sex or exercise. The changes to Bea's lifestyle will also have a broader relational impact on Bea's children, her partner if she has one and perhaps the wider family.

The longer-term impact for Bea of having her uterus removed will be variable. While clinical outcomes for hysterectomy are generally positive, the obvious difference is that the typical hysterectomy patient has a clinical reason for the removal of their uterus, whereas the UTx donor will not benefit clinically. The impact will also vary according to whether the donor had associated symptoms (akin to premature menopause) including osteoporosis,⁶⁴ decreasing sexual interest and low mood without hormone replacement therapy.⁶⁵ The impact of these potential surgical complications on quality of life and

emotional health should not be understated. Kisu et al. also note that, even where the surgery goes well, there can be significant impact on the donor's mental health as a result of scarring or stress in managing post-operative pain.⁶⁶

The key ethical argument concerning live donation for UTx is that it requires the donor to undergo a highly invasive, potentially risky operation for the benefit of another.⁶⁷ Additional concerns have been highlighted with respect to the risks to the recipient—again the surgery is complex and risky—plus, there is a chance Ali's body might reject the organ, leading to a crisis necessitating the immediate surgical extraction of the rejected uterus. A further emotional risk to Bea and any donor transpires if the surgery is unsuccessful. If Ali becomes extremely ill, this will impact negatively on Bea, who might feel that she was involved in facilitating the situation. Similarly, if the transplant does not lead to the live birth of a healthy child, the entire endeavour will have caused only harm with no beneficial outcomes and this might also be a devastating outcome for all those involved.

Once Ali's condition is stabilized, she will have her embryo implanted in the hope that pregnancy ensues, but given the additional risks of pregnancy for a person with a donor womb, this will be an anxious time for both Ali and Bea. If a pregnancy is successfully established following IVF treatment, there is a risk the transplant could not support foetal life, leading to the death of the foetus and more surgery, since the foetus could not be expelled via miscarriage. Bea might therefore experience further emotional anguish as a result of concern for her sister.

Reflecting on these risks, live donor UTx seems difficult to justify from a clinical and ethical perspective; however, the procedure also has some unique benefits for donors (and recipients), which may justify the risks.

The potential benefits that Bea might experience in UTx will depend on her perspective. There are some reasons why some people *want* or are happy to give up their wombs; this is a fact often ignored in the literature when discussing who can be a live donor for UTx (it must be a person who has already had children).⁶⁸ For some it might be a relief, if they have a family history of cervical cancer or they are using forms of birth control to avoid unwanted pregnancy that affect their mood and well-being.

Bea might also prefer to have a surgery with a 6–8-week recovery window than to undergo the lengthy process of being a surrogate; getting pregnant, being pregnant, giving birth. Uterus retrieval is an invasive option, but surrogacy is also invasive and for a much longer period. There would also be less concern about how other aspects of her autonomy might suffer in all the choices to be made during pregnancy that her sister, however well-intentioned, might participate in.

The benefits accruing to the donor will also depend on their relationship with the intending parent(s) and of course, whether the

⁵⁷See Bruno, B., & Arora, K. S. (2018). Uterus transplantation: The ethics of using deceased versus living donors. *The American Journal of Bioethics*, 18(7), 6–15.

⁵⁸See note 10.

⁵⁹5.5 hr was the mean from a living donor trial in the United States: Testa, G., Koon, E. C., Johannesson, L., McKenna, G. J., Anthony, T., Klintmalm, G. B., Gunby, R. T., Warren, A. M., Putman, J. M., dePrisco, G., Mitchell, J. M., Wallis, K., & Olausson, M. (2017). Living donor uterus transplantation: A single center's observations and lessons learned from early setbacks to technical success. *American Journal of Transplantation*, 17, 2901–2910.

⁶⁰Two of the 14 donors in Sweden suffered ureteral injury; Olausson (2020), op. cit. note 5.

⁶¹Kvarnstrom et al., op. cit. note 7.

⁶²Testa et al., op. cit. note 8.

⁶³NHS. (n.d.). <https://www.nhs.uk/conditions/hysterectomy/recovery/>

⁶⁴Ji, M., & Yu, Q. (2015). Primary osteoporosis in postmenopausal women. *Chronic Diseases and Translational Medicine*, 1, 9–13.

⁶⁵Kisu, I., Mihara, M., Banno, K., Umene, K., Araki, J., Hara, H., Suganuma, N., & Aoki, D. (2012). Risks for donors in uterus transplantation. *Reproductive Sciences*, 20, 1406–1415.

⁶⁶Ibid: 1409.

⁶⁷Hammond-Browning, N. (2019). UK criteria for uterus transplantation: A review. *BJOG*, 126, 1320–1326.

⁶⁸The current UK trial—at the time of writing—has this requirement.

transplant is ultimately successful. Where there is a close relationship with the recipient, as between Ali and Bea (and thus any prospective child), the donor will presumably care deeply for the welfare of their loved one and so, as we discussed above in relation to surrogacy, it will be important to them to act altruistically. Bea might have held a keen desire to facilitate Ali's wish to reproduce (and specifically to *gestate*) due to her own wish to form a relationship—as an aunt with a child born of Ali. In some of the UTX donations in Sweden, mothers gave their wombs to their daughters, which raises the potential for similarly beneficial relationships with future grandchildren. Thus, depending on relational questions and transplant success, it seems that the serious risks outlined above may be seen by the WG as proportionate to the hoped-for benefits.

3.3 | Weighing the consequences for the WG

Both surrogacy and UTX pose a high risk for the WG and both require a significant sacrifice that will have a profound impact on the WG's physical health and potentially their psychological well-being. Having assessed the comparative burdens and benefits, we suggest that the crucial focus should be ensuring that the WG fully appreciates the risks and has the time and space to decide whether to assist with gestation free from duress (intentional or otherwise). For some, who find pregnancy enjoyable, the physical burden of surrogacy may not be a significant concern; however, the psychological effect is less predictable unless the WG has experienced surrogacy before and even then, a second or third experience will not necessarily be the same. Similarly, for UTX, for a person who appreciates the risks and is comfortable with the prospect of serious surgery and the (unknown) impact of the loss of the womb, with the possible effects identified, donation may seem like a proportionate and desirable sacrifice. But again, the physical and psychological impact of donating one's womb, with all that entails may be more difficult than anticipated. We do not currently have much knowledge about these impacts because there have been so few donations to date.⁶⁹ Because these risks are far less well understood (compared to surrogacy), as well as being potentially more serious because UTX donation necessarily involves complex surgery, from a purely objective clinical perspective, surrogacy would appear to be physically less risky.

With our notional sisters, Ali has a responsibility to ensure that Bea is provided with all the relevant information about the risks before deciding whether she is willing to become a surrogate or donate her womb, or neither. Following this, if Bea decides to be a surrogate or a donor for UTX, she should feel free to change her mind at any point between her initial agreement and the commencement of the 'treatment'. Because Bea's willingness to make either sacrifice seemingly rests on her sisterly relationship with Ali and a desire to assist

in Ali's aim of becoming a parent, that relationship may come under significant strain and so counselling about their expectations and the difficulties that both options might bring, would help both parties to avoid problems. For surrogacy involving a stranger surrogate, counselling would similarly place all parties in a more resilient position to manage any disagreement or tension in the relationship.

From a social perspective UTX might appear to be a more attractive option for both Ali and Bea. If the donation is successful, it enables the intending mother to gestate and the 'intending aunt' to avoid any socially confusing situations created by a surrogacy pregnancy.⁷⁰ Gestation is almost inevitably a publicly owned phenomenon,⁷¹ particularly when it is assisted, and so all parties, and particularly the intending parent(s) would avoid any awkward social expectations over their reproductive experience. The social, experiential and legal benefits of UTX over surrogacy, however, should not encourage the intending parent(s) to shy away from fully examining the impact of live donation on the health and psychological well-being of the donor and the recipient. In contrast to UTX, a surrogate pregnancy is, at present, less fraught with *unknown* physical risks and burdens. However, this is dependent on the WG's perspective and how they perceive risks related to their body, their womb, and their feelings about undergoing pregnancy or donating their womb.

There are lots of different aspects to the decision of *how* to assist with gestation once a potential WG has decided that they wish to provide this assistance. There are two important points that are crucial to emphasize here. First, there are both potential benefits and drawbacks to both methods of assisted gestation. When the perspective of the WG is considered, there is a tendency for only the potential negative aspects of both UTX and surrogacy to be centred in conversation. In this paper, we sought to highlight that there are numerous benefits that might result from both of these experiences for womb-givers—particularly in a relational sense. Ethical analysis of the permissibility/desirability of either option from the perspective of the WG should take these benefits into account, in particular in looking at live-donor UTX where the donor and recipient have a personal relationship, and surrogacy arrangements where the surrogate is a friend or relative of the intending parent(s).

Second, and most importantly, a decision about how to perform assisted gestation will be very personal, influenced by a person's individual preferences, values, wishes and feelings, which are likely to have been informed by their subjective experiences. Some intending womb-givers will value pregnancy, others will not; some may have enjoyed a previous pregnancy, others may have found a previous pregnancy traumatic; others will value their womb as an important part of their identity; others will not. Our scenario in this paper assumes some sort of personal connection between the womb-giver and -seeker, and in such cases it is likely that the decision will be

⁶⁹The authors were unable to find any empirical data about donor experiences, which is notable. The value of such a study, however, might be questioned since donors reporting on their experiences might still be doing so with the recipient's feelings in mind for the reasons we have explored.

⁷⁰We do not defend the social circumstances we mention here, but we mean to highlight—as we have earlier in this paper—some of the difficulties that can be experienced by those who carry pregnancies when they do not intend to be the social mother of the resulting child after birth.

⁷¹See Pollack Petchesky, R. (1987). Fetal images: The power of visual culture in the politics of reproduction. *Feminist Studies*, 13, 262–293.

made somewhat mutually. Still, in cases where the womb-seeker has a particular preference for a form of assisted gestation, we would argue that they have an ethical obligation not to try and impose this preference upon the WG.

It is important that the preferences of prospective womb-givers, and their resulting decisions, are afforded due respect. We would not want, therefore, to reach a generalizing conclusion about whether surrogacy or UTx is more ethically defensible from the perspective of the WG, as this will depend not only on their subjective situation but also the legal and social context in which they make this decision. We could speculate that surrogacy might, in the current circumstances, be deemed preferable by more prospective womb-givers because it is more likely to be successful and might be conceptualized as less clinically risky overall. This also might be the opinion of many health professionals who might be concerned about performing highly invasive uterus retrieval surgery on a person for what are perceived as lifestyle (as opposed to life-saving) benefits for another person. However, the only firm conclusion we wish to emphasize is that the preferences of the womb-giver should be central in order to give the utmost respect to their personal experiences, relational perspective and bodily autonomy. Offering to help someone have the desired biological child that they themselves cannot gestate and bring to birth can entail both great sacrifice and reward; we would argue that the person who will undertake this endeavour is best positioned to decide in which way they want to help, and their decision should be centred and respected by all the participants in the process.

4 | CONCLUSION

This paper follows other efforts to tease out the comparative ethics of live donor UTx and surrogacy. However, our investigation is unique in focussing our comparative appraisal on the WG and their *bodily* autonomy—rather than the usual focus on the reproductive autonomy (and corresponding ethical responsibilities) of those seeking a form of assisted gestation. We demonstrated how the most important aspect of the decision of assisted gestation is the bodily autonomy of the potential WG and their informed consent to the method (carrying a pregnancy or donating their uterus) that they are considering. We also highlighted the importance of thinking about assisted gestation relationally to highlight the potential benefits of womb-giving for the WG, and thus give a realistic assessment of what these experiences may be like in practice.

Social and legal factors may make UTx seem like a superficially more attractive option; however, this is often because the situation is viewed from the perspective of intending parent(s) who are vested in a desire to gestate while avoiding any complications regarding legal parentage. However, there are physical and psychological

harms that are unique to UTx from the perspective of the WG. We have also examined the likely benefits that the WG will experience from both forms of assisted gestation. Experiences of pregnancy and of surgery/donation are not universal, and it is important that in future discourse about assisted gestation more attention is given to the perspective of the WG. The fact that this person's bodily autonomy will be engaged, and potentially impacted, in different ways by both surrogacy and UTx illustrates the importance of the WG's choice about their body and whether and how they use it to help the womb-seeker.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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