Fertility stakeholders’ concerns regarding payment for egg and sperm donation in New Zealand and Australia

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Abstract New Zealand and Australia are countries which currently prohibit donor payment and require open-identity forms of donation. This study explored the concerns of fertility stakeholders regarding payment which would constitute financial reward for gamete donation, and factors predicting such concerns. A total of 434 participants from across New Zealand and Australia completed an online survey anonymously. Participants included those with infertility and treatment experience, donors, recipients, donor-conceived people and clinic professionals. Results indicated that participants’ concerns related to their assumptions about the type of donor motivated by financial reward, and the possibility that, if paid, donors might conceal information relevant to treatment and the donor-conceived person. Furthermore, participants were concerned about increasing recipient costs. Participants with personal experience of infertility held stronger concerns overall. Professionals expressed concerns of clinical relevance, such as the withholding of donor information relevant to treatment outcomes. The lowest levels of concern were expressed in relation to payment devaluing the meaning of human life. Qualitatively, themes highlighted concerns regarding payment enticing the ‘wrong’ type of donor, increased cost to recipients, and concern about the wellbeing of donor-offspring. Collectively, such concerns must be understood against the New Zealand and Australia open-identity donation context which enables the possibility of contact between donors and offspring. These findings indicate that donor recruitment campaigns need to account for different stakeholder concerns, and consider ways to address donor shortages effectively while remaining compliant with legislative requirements.

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Introduction

Donor-assisted conceptions have become more commonplace in fertility clinics across the world (American Society for Reproductive Medicine, 2019; Human Fertilisation & Embryology Authority, 2020), and in New Zealand and Australia, donor-gamete-related treatment accounts for approximately 5–10% of all treatment cycles at fertility centres (Fertility Associates, 2020; Newman et al., 2019). Despite being a more common practice, conditions of donation, such as compensated versus altruistic donation, remain contentious (Nahata et al., 2017). This is due, in part, to a reported shortage of both egg and sperm donors, resulting in escalating waiting lists (FertilityNZ,
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Payment for donors may cover a range of transactions involving money, including payment as ‘recompense’ [defined as payment in recognition of losses experienced, including material losses related to donation (reimbursement), as well as non-financial losses, such as inconvenience, time or discomfort (compensation)] and payment as ‘reward’ [defined as material advantage that goes beyond recompense] (Nuffield Council on Bioethics, 2011).

Donor payment in the form of reward may be one option by which the supply of available donors could be increased (Egli et al., 2011; Pennings et al., 2018). While free-market systems operate in countries such as the USA, donor payment constituting material advantage is prohibited by law in many European countries (Kalampalikis et al., 2013; Pennings, 2015; Pennings et al., 2018). Advocates in support of such donor programmes contend that payment is justifiable and is in acknowledgement of the treatment endeavours of donors. This includes time, effort and ‘inconvenience’ rather than the actual donated gametes (Johnson, 2017). This is particularly evident in situations of oocyte donation due to the possibility of physical and psychological risks, invasiveness of medical intervention, and potential morbidity (Lee et al., 2017).

Opponents of donor reward, on the other hand, argue a myriad of concerns. These include: financial coercion and exploitation of donors, particularly those from disadvantaged backgrounds (Kool et al., 2019; Waldby et al., 2013); the recruitment of donors who may misrepresent background psychosocial and physical histories relevant to treatment in order to be accepted into donor programmes, or who may lack interest in the outcome of their donation (i.e. the donor-conceived person) (Daniels and Lewis, 1996; Daniels, 2000; Kalampalikis et al., 2012; Lee et al., 2017); and commodification of, and devaluation of, human life contrary to religious and cultural mores (Daniels, 2000; Graham et al., 2016; Lee et al., 2017). Given the advent of donor identity release practices in many jurisdictions and the endorsement of contemporary DNA technology, the prospects of maintaining donor anonymity are reduced, and the potential for donor-conceived people to trace and even contact their donors is thus increased (Crawshaw, 2018; Crawshaw and Daniels, 2019; Kennett, 2020). Within this context of possible contact between the donor and recipients/offspring, it becomes even more pertinent to address concerns regarding donor practices, including donation for financial reward, as how recipients and offspring make sense of the donors’ motives may have some bearing upon their experiences and life narrative.

In New Zealand, donor practice is currently altruistic, with the HART Act (2004) stipulating that the commercial supply of human embryos or gametes is prohibited, and that ‘no person may give or receive, or agree to give or receive, valuable consideration for the supply of a human embryo or human gamete’ [HART Act, 2004, 13 (1)]. Valuable consideration is defined as ‘includ(ing) an inducement, discount, or priority in the provision of a service’ (HART Act, Part 1, 5). This position is similarly replicated across Australian states and territories, whereby commercial inducements are strictly prohibited by state legislation and federal guidelines [e.g. Assisted Reproductive Technology Act 2007 (NSW), S3; Human Cloning for Reproduction and Other Prohibited Act 2003 (NSW) No 20, Part 2, S16; Human Reproductive Technology Act 1991 (WA), S53Q; Human Tissue Act 1982 (VIC), S38; National Health and Medical Research Council (NHMRC), 2017; Prohibition of Human Cloning for Reproduction Act 2002 (Cth), S21]. On the other hand, reimbursement of reasonable costs associated with donation is permitted in both countries and was supported empirically in recent research (Goedeke et al., 2020). In this study, support was expressed for reimbursement of costs, including donors’ medical expenses, travel time, unpaid time away from work relating to treatments, and out-of-pocket expenses directly related to the gamete donation process. Support for payment of donors over and beyond treatment-related reimbursement costs and which would leave donors in an improved financial position was more limited, although this was qualitatively regarded as potentially necessary as a means to improve donor gamete supply. Indeed, donor shortages in both Australia and New Zealand have led to a call by practitioners and consumer groups to consider offering payment in the form of direct financial reward (Fallon, 2021; Warhurst, 2016), and it is apparent that intending parents may travel across borders to access donor treatment in other jurisdictions which operate commercial models and have an adequate supply of donors (Rodino et al., 2014).

Given the demand for donor gametes, the call by some sectors to introduce payment as an incentive, and the increased prevalence of cross-border reproductive care, this study aimed to: (i) explore the concerns of individuals with personal or professional knowledge or experience of infertility and/or fertility treatment regarding donor payment; and (ii) determine whether these concerns were related to sociodemographic variables (such as age, gender and education), and personal or professional fertility experience. Information obtained from this study has the potential to highlight concerns which may inform the debate in Australia and New Zealand regarding the introduction of payment which goes over and above reimbursement costs. The findings may also be useful in helping both prospective donors and recipients to consider the implications of commercial models.

Materials and methods

Participants

This study represents the second part of an overarching study investigating recognition and payment options in New Zealand and Australia, with the level of support for various options reported in an earlier publication (Goedeke et al., 2020). Participants were recruited from stakeholders involved in assisted reproductive technology (ART) treatment, and included those who had personally experienced infertility [defined as the inability to conceive after attempting for $\geq 1$ year (Fertility Associates, 2021a) and may include those who have not accessed treatment]; current and past fertility clinic consumers and their associates; donors; recipients; donor offspring; and professionals such as fertility specialists, embryologists, nurses and counselors. All participants had to be conversant in English and aged $\geq 18$ years.
Questionnaire

An online questionnaire designed by the research team was developed from current donor conception and compensation literature. To enhance questionnaire validity, the questionnaire was piloted with consumers, researchers and fertility professionals. The questionnaire contained demographic questions; questions related to infertility experience and fertility treatment history; and opinion statements relating to support for different forms of reimbursement, recognition and payment options for gamete donors. Participants were asked about the extent to which they agreed with a list of concerns in relation to donor payment over and above reimbursement and which constitutes financial reward, which had been commonly cited in research on donor compensation, as well as given the opportunity to add and rank additional items of concern. Items of concern related to general ethical questions (e.g. donation as a gift, value of human life) and, more specifically, to the different parties involved in donation, such as the interests of donors (e.g. potential coercion, discounting of risks), the interests of recipients (e.g. cost, access, disclosure), the interests of donor-conceived individuals (e.g. discomfort, disclosure, access to genetic heritage) and the interests of all parties (e.g. longer-term issues). All items were represented in a tabular format and assessed using a seven-point Likert scale, with scores ranging from 1 (indicating strongly disagree) to 7 (indicating strongly agree); a score of 4 represented a neutral response. Participants were also able to give free-text responses to elaborate on items, and were asked to describe their concerns in more detail. This article focuses specifically on participants’ concerns about payment.

Procedure

The study was advertised online through the websites and social media pages of fertility service providers, and consumer, university and professional groups in both countries. Participants were able to forward the questionnaire link to other interested parties, allowing for snowball sampling. Following consent, participants completed the internet-based questionnaire anonymously, which took approximately 20 min. The questionnaire was available for completion between November 2018 and March 2019. Approval for this study was granted by the Auckland University of Technology Ethics Committee (Reference Number: 18/304).

Data analysis

Statistical Package for Social Sciences v.26 (IBM Corp., Armonk, NY, USA) was used for all data analyses, which were exploratory in nature; as such, all inferential testing was two-tailed. The execution of all tests was performed with careful consideration of protocols and assumptions described by Tabachnick and Fidell (2019), with statistical significance set to $\alpha = 0.05$. Data were tabulated and descriptive statistics were calculated for all continuous variables, with frequencies and proportions (%) being collated for categorical variables. For either egg or sperm donation, a repeated-measures within-group analysis of covariance (ANCOVA), controlling for sex and age, was performed in order to compare differences across the 11 items reflective of donor payment ‘concerns’. Partial eta square ($\eta^2_p$) was reported to indicate effect size. Bonferroni post-hoc adjustments were deployed on items of statistical significance.

To determine predictors of payment concerns, multiple linear regression analyses were undertaken. Due to the number of predictors and exploratory nature of the study, a backward stepwise approach was adopted, with the stepping-method criterion for entering a variable into the model being set to $F = 0.05$ and the removal probability set to $F = 0.1$. One predictor variable was continuous (age), and the remainder were categorical variables which were dummy coded. Where a significant result was found for a categorical variable with three or more levels, the reference category/categories are documented. The levels of the categorical variables are shown in Table 1 and were as follows: sex; relationship status; religious orientation; highest level of education attained; employment status; child situation; infertility issues; sought infertility treatment; fertility professional; egg or sperm donor; egg or sperm recipient; donor-conceived person; and know a donor or recipient.

Qualitative data consisting of 165 text responses were analysed by the first author for general themes using Braun and Clarke’s (2006) manual method of thematic analysis. In this process, following data familiarization, conceptually similar text was coded and then aggregated into potential themes and naming of themes. A confirmatory analysis was undertaken by the second author to review and check the plausibility of the themes. Finally, a report was produced which illustrated themes through compelling data extracts.

Results

In total, 434 participants completed the questionnaire. Of these, 90.6% identified as female [mean age 38.11 years, standard deviation (SD) 10.34 years] and 9.4% identified as male [mean age 43.27 years, SD 11.17 years]. Participant representation included respondents with personal experience of infertility (49.3%), and 53.7% reported that they had actively pursued ART treatment for themselves or their partners. One-quarter (23.7%) of respondents identified themselves as professionals working in the ART industry. Thirty-seven participants reported being egg donors, six reported being sperm donors, 33 reported being egg recipients (26 females and seven males), and 93 reported being sperm recipients (55 females and 38 males). In addition, 61.5% of participants personally knew someone who had been involved in gamete donation treatment (either as a recipient or donor). Twenty-six participants were donor-conceived offspring. Further sociodemographic details are presented in Table 1.

Concerns about payment over and above reimbursement costs

A composite total concern score was generated by summing the 11 items of concern [mean 47.28, SD = 13.98, min = 12,
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Table 1  Sociodemographic profile of respondents (n = 434).

| Characteristic                                      | n (%)       |
|-----------------------------------------------------|-------------|
| Sex                                                 |             |
| Female                                              | 393 (90.6)  |
| Male                                                | 41 (9.4)    |
| Country of residence                                |             |
| Australia                                           | 158 (36.4)  |
| New Zealand                                         | 276 (63.6)  |
| Relationship status                                 |             |
| Married                                             | 266 (61.3)  |
| Single                                              | 70 (16.1)   |
| In a relationship                                   | 97 (22.4)   |
| Ethnicity                                           |             |
| New Zealand European/Australian                     | 362 (83.5)  |
| European (other)                                    | 36 (8.3)    |
| Māori                                               | 15 (3.5)    |
| Asian                                               | 5 (1.2)     |
| Other                                               | 15 (3.5)    |
| Religion                                            |             |
| Christian                                           | 130 (30.5)  |
| Atheist/agnostic                                    | 286 (65.9)  |
| Other                                               | 10 (2.3)    |
| Education                                           |             |
| Secondary school                                    | 47 (10.8)   |
| Polytechnic/training college                        | 77 (17.7)   |
| University undergraduate                            | 140 (32.3)  |
| University postgraduate                             | 160 (36.9)  |
| Other                                               | 10 (2.3)    |
| Employment                                          |             |
| Full time                                           | 253 (58.3)  |
| Part time                                           | 116 (26.7)  |
| Unemployed                                          | 20 (4.6)    |
| Other                                               | 45 (10.4)   |
| Children                                            |             |
| Yes                                                 | 211 (48.6)  |
| Yes, but desire more                                | 76 (17.5)   |
| No, but want children                               | 24 (5.5)    |
| No, cannot conceive                                 | 29 (6.7)    |
| No, do not want                                     | 93 (21.4)   |
| Experienced infertility                             |             |
| Yes                                                 | 214 (49.3)  |
| No                                                  | 211 (48.6)  |
| Sought fertility treatments for self or partner      |             |
| Yes                                                 | 233 (53.7)  |
| No                                                  | 185 (42.6)  |
| Type of participant                                 |             |
| Egg donor                                           | 37          |
| Sperm donor                                         | 6           |
| Egg recipient                                       | 26 females/7 males |
| Sperm recipient                                     | 55 females/38 males |
| Professional                                        | 103 (23.73) |
| Donor-conceived (female and male)                   | 26          |

Adapted from Goedeke et al. (2020: 121).

max = 77) following evidence of acceptable reliability (Cronbach’s alpha = 0.916). Table 2 shows the mean values for participant responses to each of the individual 11 items of concern. The highest mean scores were obtained on items around concerns that payment would attract people donating for the ‘wrong’ reasons, or that payment would
increase the costs incurred by recipients for fertility treatment, followed by worries around potential donors not disclosing relevant histories. In contrast, the item with the lowest rating of concern was the perception that payment diminishes the value of human life. This was followed by a similarly low level of concern that the resultant donor-conceived person may be uncomfortable as a result of knowledge of donor payment, or that donors/recipients may be less inclined to ensure that children have access to information about their genetic heritage. To determine whether the means across the 11 items of concern were statistically equivalent, a repeated-measures ANCOVA, controlling for age and gender, was performed \[ F(10,3850) = 17.51, \; P < 0.001, \; \eta^2 = 0.044 \]. Statistical significance across the 11 items gauging concern (Table 2, first column) can be identified by scrutinising the superscript characters contained within the second column of Table 2.

**Predictors of payment concerns**

Note that only those predictor variables significantly related to one or more of the 11 items of concern are listed in Table 2, where positive coefficients indicate greater levels of concern relative to their reference and negative coefficients indicate lower levels. Model fit (R²) ranged from approximately 2% to 9% of variance accounted for in the dependent variable, which in this context can be considered modest. Scrutiny of the significant predictor variables indicates that participants who had experienced infertility (regardless of whether or not they had received treatment) had stronger concerns overall about payment than those who did not report fertility issues. In addition, those who had received fertility treatment held concerns specifically about the possibility of payment leading donors to discount risks, and about genetic knowledge being withheld from children, and those who had been unable to have children had more concerns about potentially inequitable access to donor gametes (i.e. ‘better’ eggs or sperm). Egg and sperm recipients appeared to be less concerned about possible financial coercion of donors. Religious beliefs only seemed relevant to concerns around financial coercion, with atheists/agnostics reporting greater concern than Christians. Being a professional predicted greater concern for factors connected to clinical relevance, such as donors not disclosing relevant medical or psychosocial backgrounds, or that genetic information might not be disclosed to their offspring. The ‘other employment’ category, consisting predominantly of full-time stay-at-home parents or those on maternity/paternity leave, were more concerned about child-related factors (Items i, j and k) than those in paid employment. Finally, of note, those with a university education were more concerned about the donor-conceived child’s comfort with donor payment (Item i) and the issue of donors discounting risks (Item g) than those with a secondary school education.

**Thematic content analysis**

Thematic analysis of 165 free-text responses identified three main themes in relation to concerns regarding donor payment: that payment would attract the ‘wrong’ type of donor; concern for donor offspring wellbeing; and financial burden on recipients.

**The ‘wrong’ type of donor**

Participants frequently referred to donors who donated for money as the ‘wrong kind’ (female with personal experience of infertility and treatment), ‘less suitable’ (female professional), ‘questionable’ (female sperm recipient), ‘undesirable’ (female with personal experience of infertility), ‘(their) quality would not be adequate’ (donor-conceived female) and not ‘healthy, responsible, well-socialized donors’ (donor-conceived female).

Negative characteristics were ascribed to paid donors, with descriptors including that they were ‘ego-driven’ individuals (female professional) and ‘junkies’ (female, personal experience of infertility), ‘be untruthful about family medical history to avoid being screened out’ (female, personal experience of infertility and treatment) or prone to ‘non-disclosure of physical and mental health issues’ (female professional).

It was further postulated that paid donors might use donation as a means to earn money and thus ‘donate multiple times’ (female professional) and ‘travel between multiple clinics and create numerous offspring who would then be unknown to each other’ (donor-conceived person), even potentially ‘(using) false information and go to different providers’ (female sperm recipient). They were thus portrayed as materialistic and potentially deceitful.

Relatedly, participants commented that paid donors would be donating for the ‘wrong reasons’ (egg donor). Financial motivations were thus presented as undesirable and incompatible with motivations perceived as more favourable, such as altruism. Comments included:

- The right people are not motivated by monetary gifts...but are doing it to help another family (egg donor).
- (Non-paid donors) do it from their heart (female sperm recipient).
- Genuinely wanting to help (female with personal experience of infertility and treatment).
- I wasn’t doing it for money and didn’t want anyone to think I was in it for money (egg donor).

**Sensitivity to the long-term physical and psychological wellbeing of donor-conceived offspring**

In relation to the concern about physical payment attracting the ‘wrong’ type of donors, participants’ reservations centred around the implications of donor payment for the longer-term wellbeing of donor-conceived individuals. For example, participants commented that commercial donors were ‘unlikely to have any concerns for the future welfare of the child’ (donor-conceived male, professional), were unlikely to be ‘thoughtful’ (male professional) or to ‘have considered all the implications’ for offspring (female sperm...
Table 2  Results of a repeated-measures analysis of covariance (ANCOVA) (Column 2) and step-wise multiple linear regression analyses (Columns 4–7) undertaken on concerns around payment for gamete donation.

| Concern over payment | Repeated-measures ANCOVA | Stepwise multiple linear regression analyses |
|----------------------|--------------------------|--------------------------------------------|
|                      | Mean  SD                 | Model $R^2$  B  SE  b                        |
| a) Unethical         | 3.95b,c,d,e,f,g,h 1.91  | 0.029         0.558 0.207 0.145***           |
| Infertility          |                          |                                           |
| b) Diminishes value of human life | 2.99b,c,d,e,f,g,h,i,j,k 2.02  | 0.043         0.762 0.215 0.189***           |
| Infertility          |                          |                                           |
| c) Financial coercion| 4.52a,b,d,e,f,i,j,k 1.77  | 0.066         0.642 0.188 0.181***           |
| Infertility          |                          |                                           |
| Christian (ref.: atheist) |                      |                                           |
| Egg/sperm recipient |                          |                                           |
| d) Not disclosing relevant histories | 5.07a,b,c,g,i,j,k 1.52  | 0.037         0.512 0.163 0.166***           |
| Infertility          |                          |                                           |
| Professional         |                          |                                           |
| e) Attract donors for the ‘wrong’ reasons | 5.10a,b,c,g,i,j,k 1.53  | 0.058         0.481 0.161 0.159***           |
| Infertility          |                          |                                           |
| Professional         |                          |                                           |
| Unemployed (ref.: employed) |                      |                                           |
| f) Increases cost of fertility treatment for recipients | 5.10a,b,c,g,i,j,k 1.50  | 0.018         0.751 0.301 0.133***           |
| No children, unable to conceive (ref.: have children already) |                          |                                           |
| g) Donors may discount risks | 4.69a,b,d,e,f,i,j,k 1.51  | 0.051         0.575 0.163 0.185***           |
| Received fertility treatment |                          |                                           |
| Secondary school (ref.: university) |                      |                                           |
| h) Wealthy may access ‘better’ sperm or eggs | 4.49a,b,i,j,k 1.78  | 0.015         0.510 0.201 0.143***           |
| Infertility          |                          |                                           |
| No children, unable to conceive (ref.: have children already) |                          |                                           |
| i) Children born from donation will be uncomfortable | 3.61b,c,d,e,f,g,h,j,k 1.82  | 0.075         0.721 0.193 0.197***           |
| Infertility          |                          |                                           |
| Secondary school (ref.: university) |                      |                                           |
| Other employment (ref.: full time) |                      |                                           |
| j) Donors/recipients less likely to ensure children have access to information about genetic heritage | 3.78b,c,d,e,f,g,h 1.74  | 0.089         0.874 0.188 0.247***           |
| Received fertility treatment |                          |                                           |
| Professional         |                          |                                           |
| Other employment (ref.: full time) |                      |                                           |
| k) Long-term issues associated with donation disregarded | 4.03b,c,d,e,f,g,h,i 1.80  | 0.054         0.717 0.190 0.200***           |
| Infertility          |                          |                                           |
| Other employment (ref.: full time) |                      |                                           |

SD, standard deviation.

$^{*} P < 0.05;  ^{**} P < 0.01;$

$^{***} P < 0.001$. Superscript characters indicate statistical significance across the means in Column 2. Model fits and regression parameters were obtained from the final regression step.
recipient), and were unlikely to exhibit ‘care’ for the well-being of those individuals, including preparation to have future ‘meaningful contact with the donor-conceived child/adult’ (donor-conceived female).

The assumed non-disclosure of relevant medical and psychological information, lower interest in information exchange and contact, and multiple donations occurring in paid donation contexts were linked to negative future outcomes for offspring. Comments included:

It’s the child at the end of the day that would potentially suffer (female sperm recipient).

It is about finding the right type of people to donate so that those like myself when they contact their donors have a pleasant experience (donor-conceived female).

Financial burden on prospective parents

Paying for gametes was regarded as constituting an additional financial burden for prospective parents who had likely already invested significant amounts in their treatment. This notion was exemplified by participants who commented that ‘most who need treatment have gone into huge debt to pay for it; not keen to put them in further hardship’ (female with personal experience of infertility and treatment), ‘adding extra costs would be heart-breaking’ (female with personal experience of infertility and treatment), ‘it can already be hard enough on them financially’ (egg donor), and donor payment means ‘even more funds to find’ (female with personal experience of infertility and treatment). This could result in ‘longer waiting lists for people who cannot afford to pay’ (female with personal experience of infertility and treatment) or inability to access treatment, ‘I couldn’t afford to pay my donors as well as the clinic!’ (female sperm and egg recipient).

Discussion

Across New Zealand and Australia, rates of gamete donation lag behind the demand for recipients in donor-assisted conception programmes, and as payment for donation may be suggested as one avenue through which to increase donor numbers, this study sought to explore concerns in relation to payment constituting financial reward. The participants broadly held concerns about the type of donor they assumed would be attracted by financial reward. Financially-motivated donors were positioned as having less-than-desirable qualities, and were juxtaposed with those motivated by altruism, who were assumed instead to be ‘good’ people. Less desirable features assumed to be associated with financially-motivated donors included behaviour such as non-disclosure about information deemed important for donor-conceived offspring. More specifically, professionals and those who had experienced infertility had concerns with respect to the possibility that genetic and relevant medical/social history information might be withheld by such donors from offspring/recipient families. Professionals’ concern with potential donor behaviour and the long-term impact thereof likely reflects their knowledge of national policy and legal requirements — the provision that is made in both countries for offspring to have access to identifying information about their donors once they reach 18 years of age — and thus the need to consider the longer-term outcomes of donation practices, such as how donor-conceived people will make sense of their conception and how potential donor-linking is experienced. The HART Act (2004) is based on guiding principles which include that the health and wellbeing of children born as a result of treatment should be an important consideration in all decisions about that procedure, and that the health, safety and dignity of present and future generations should be preserved and promoted. Professionals will be aware of such principles, and other research (e.g. de Lacey et al., 2015) has suggested that many professionals feel a sense of responsibility for the longer-term outcomes associated with the ART treatments they promote. Through ascribing more positive qualities to altruistic donors and positioning altruistic donation and donation for financial reward as mutually exclusive, they may feel more confident in positive outcomes for donor offspring in non-commercial models. Similarly, those with experience of infertility may be more likely to contemplate short-term and longitudinal outcomes owing to their personal emotional and pragmatic investment in donor-assisted conception.

The participants’ concern about donors’ accurate reporting of medical and psychosocial histories relates to research and practice (such as mandatory implications counselling), which suggests that obtaining relevant histories and access to genetic information are important for the wellbeing and sense of identity of the donor-conceived person (ANZICA, 2018; Nordqvist, 2014). Fortunately, donors are screened for several conditions prior to acceptance into donor programmes, and in regimes such as in New Zealand and Australia, access to genetic information is, to some extent, safeguarded by policy and legislation which mandate that donor identity be recorded on central registers (e.g. Part 3 of Assisted Reproductive Technology Act 2007 (NSW); Part 6 of Assisted Reproductive Technology Act 2008 (VIC); HART Act 2004; Division 5 of the Human Reproductive Technology Act, 1991 (WA)]. Moreover, with the advent of DNA testing, the ability to conceal genetic information is diminished (Crawshaw, 2018; Harper et al., 2016; Pennings, 2019a). On the other hand, the responsibility of donors to report any relevant physical or psychosocial issues, particularly following their donation, remain self-regulated, and the participants were concerned that donor reporting on such issues could be reduced in paid donor programmes.

The concern that payment may encourage misrepresentation or a lack of honesty in terms of disclosing medical, family or social histories has been reported in other research, and is similarly linked to concerns that this may negatively affect offspring (Kalampalikis et al., 2012; Lee et al., 2017). Although the advent of expanded carrier screening of donors may reduce the likelihood that donors will conceal relevant medical and health information, carrier screening remains controversial given the potential implications for donors, such as loss of privacy (Pennings, 2020), and it still does not address the concern that relevant psychosocial histories (e.g. psychiatric illness), which carrier screening may not identify, may be misrepresented. Whether or not concerns about donor misrepresentation under commercial models are warranted remains debatable and difficult to establish.
Several researchers (Daniels, 2000; Gilman, 2018; Yee, 2009) have suggested that overt payment for gametes may depersonalize the role of the donor, or be seen as a means to disconnect the donor from their gametes, potentially reducing their interest in donation outcomes, such as the donor offspring and their wellbeing. It is possible that such depersonalisation may then facilitate acts of information omission or commission of relevant history. Related to this, as was the case in this study, is the suggestion that payment may attract the ‘wrong type’ of donors with less-than-positive characteristics, who are financially motivated and have distorted values (Daniels and Lewis, 1996; Ravelingien et al., 2015). Ravelingien et al. (2015), writing with particular reference to recipient attitudes about sperm donation payment, suggest that underlying concerns about the wrong donor types pertain to a recipient’s fundamental desire to maintain a favourable image of the genetic ‘father’ of a future child as someone with high moral standards and who is helpful and caring rather than someone who is ‘egotistic and materialistic’ (Ravelingien et al., 2015: 230). This aspiration may be heightened further given increases in donor-conceived persons and recipient families seeking their donors in the modern era, and reciprocally, for donors seeking offspring and recipient families (Beeson et al., 2011; Kelly et al., 2019; Miettinen et al., 2019). Consequently, having a donor who is perceived as the ‘right type’ and a ‘good’ person may be founded in the overarching concern for how donor-conceived offspring who may prospectively have contact with their donors will feel about and relate to their donors. The possibility of future contact between donors and donor-conceived persons and their families highlights the consideration of the donor as a person, rather than as a faceless provider of gametes.

Research on contact to date suggests that the contact may be sought not only by donor-conceived persons but also by their families and the donors themselves (Pasch, 2018). Most research also suggests that while the outcomes of contact may be positive, such as ‘fill(in)ing in some of the missing pieces’ or ‘making sense of the world’ (Kelly and Dempsey, 2016), there may also be complicating factors such as misalignment of needs. For example, such as when there are disappointments that relate to the expectations of the other party, including who they are as people (Daniels et al., 2012; Trail and Goedeke, in press). The psychosocial challenges of such contact may be numerous, and support may be required in managing expectations of contact, highlighting the importance of professional and societal duty in this area, including established protocols for donor-linkage counselling (Rodino et al., 2015; Pasch, 2018).

However, concerns about payment attracting donors with undesirable characteristics may be unfounded, and may be based on the assumption, as was the case in this study, that financial and altruistic motives are diametrically opposed. This viewpoint has been contested in research suggesting that altruistic and financial motives may often co-exist, even when there is financial inducement (Kool et al., 2019; Pennings et al., 2014; Pennings, 2015; Van den Broeck et al., 2013), and that introducing money does not automatically change the altruistic nature of donation (Almeling, 2011; Gilman, 2018). This may mitigate some of the negative associations reported about donors who are paid. Furthermore, as has been highlighted by recent media coverage of sperm donor cases, including that of Alan Phan in Australia, altruistic donors may also have motives other than helping people to create families. In the case of Phan, his donations have resulted in 23 children born in 1 year, far exceeding local limits, and as stated by Professor Kelly, seemingly with a goal to be ‘prolific’ (Lever, 2020). This raises the issue that the motivations of altruistic donors may not always be positive, and highlights the need for ongoing oversight of donor conception protocols and clinical practices. However, it is important to acknowledge that in the context of New Zealand and Australia, cultural views and legislative frameworks continue to favour altruism (Goedeke et al., 2020), and that the meanings ascribed to payment may differ across jurisdictions (Sutton, 2018).

Participants also expressed concerns related to payment increasing the costs carried by intending parents. Similarly, Klitzman and Sauer (2015) have reported that there may be concern that the additional financial obligations imposed by donor payment will widen disparities in access, with reproductive medicine preferentially serving wealthier individuals who can afford ART and related procedures. In New Zealand, government-funded treatment is available for those who meet particular eligibility criteria, which may include not being pregnant after 1 year of trying to conceive, having a known male or female factor that impacts on fertility, age requirements (females < 39 years, males < 55 years at time of referral), body mass index requirements (female < 32 kg/m², male < 40 kg/m²), not smoking, no use of illicit drugs or alcohol abuse in the past 12 months, and not having two or more children in the relationship or in any relationship where the children live at home at least some of the time. Eligibility criteria vary somewhat across districts, but a maximum of two funded cycles of treatment are available across the country (Fertility Associates, 2021b). In Australia, a similar model of government-funded care exists, where funded fertility treatment initiatives are available through select government hospitals in the states of Western Australia and New South Wales, and where eligibility criteria apply for in-vitro fertilization (IVF) treatment. In privately funded clinics in New Zealand and Australia, recipients may already be expected to absorb donor programme costs as part of their treatment, and/or reimburse known donors for out-of-pocket treatment-related expenses [Fertility Associates, 2020; Repromed, 2020; Human Reproductive Technology Act, Directions 2004 (WA)].

On the other hand, it must be acknowledged that a shortage of donors does prompt intending parents from both New Zealand and Australia to seek treatment overseas where donors may be paid and supply is more plentiful, but where concerns may be expressed about safety and quality of care (Rodino et al., 2014). The pull to cross-border reproductive care in the face of local donor shortages may, in itself, drive costs upwards, and yet payment of donors to increase local supply must be counterbalanced by considering potential implications of payment above reimbursement, which may also include an increase in overall costs carried by prospective parents, particularly if gametes become commodified according to particular donor characteristics, such as has been the case in the USA (Daniels and Heidt-Forsythe, 2012; Keehn et al., 2012).
Those who had received fertility treatment and those with a university education also held concerns about the possibility of payment leading potential donors to discount risks. Those who have received treatment may be more aware of, or have an enhanced appreciation of, what is involved in IVF. Moreover, there is some suggestion that despite poor overall public knowledge about fertility, assisted reproductive techniques and their potential implications, those with a higher education may have higher-than-average fertility-related knowledge and potentially more-educated views on the social and health impacts of treatment (Meissner et al., 2016; Moura et al., 2019; Prior et al., 2019). Other research has similarly highlighted the possibility that donor autonomy may be compromised by impairing decision-making capacities through the appeal of excessive or undue inducement, leading donors to discount the medical and psychological risks associated with donation, particularly with egg donation which carries higher risks (Lee et al., 2017; Steinbock, 2004; Sutton, 2018). Indeed, there is evidence to suggest that payment may take unfair advantage of the most vulnerable groups, particularly those in developing nations, compromising their decision-making capacities and leading to their minimizing of risk (Crozier and Martin, 2012; World Health Organization, 2010).

Of note, the lowest level of concern observed in this study was expressed in relation to items reflective of payment devaluing the meaning of human life. For some cultural groups, this finding would be ethically challenging and contrary to the perspective of studies suggesting that attaching monetary value to human gametes is deemed disrespectful of ancestral genetic gifts and/or culturally viewed as taboo (Glover, 2008). Moreover, they reflect aspects of the ongoing ethical impasse about the commodification of human life in the context of a burgeoning health industry (Klitzman and Sauer, 2015; Tong et al., 2015; Gillespie, 2019). Alternatively, given the ethically sensitive nature of these items, the finding may simply be a reflection of response bias as the majority of participants were either working in the field or had lived experience of fertility treatment. Further qualitative exploration of these items would have been beneficial.

Finally, it is important to note that having concerns about payment, as is reflected in this study, does not necessarily imply absolute disagreement with payment or that all forms of payment should be dismissed — nevertheless, expressed donor payment concerns raised in this study give reason for caution and reflection on how best to address and mitigate the potential for such concerns. One possible approach would be to explore the concerns held by people in more depth, and to highlight the research which suggests that financial and altruistic motives are not necessarily diametrically opposed (Gilman, 2018; Kool et al., 2019), and that the concern around the type of donor incentivized by monetary payment may not necessarily hold true. Given, however, that payment per se may not necessarily increase the number of donors who donate (Daniels, 2000), and that research suggests that support for payment constituting financial reward is not strongly endorsed in the New Zealand and Australian context (Goedeke et al., 2020), other ways that address both the need for donors and ways to improve donor recruitment in keeping with the current legislative framework of altruistic donation should also be considered. These include better education and health promotion programmes with respect to age-related fertility decline, thereby reducing the need for donors in some cases, and public awareness campaigns that draw on personal stories and civic duty to attract donors (Del Valle et al., 2008; Shaw, 2010; Moura et al., 2019).

Limitations

Participants were primarily recruited from fertility stakeholders’ groups, which may produce respondent bias, but may also be a strength of the study in that these groups may be more knowledgeable about and more invested in research on issues perceived to be related to longer-term outcomes of donor conception practice, such as increased trends towards donor-recipient/donor–donor-conceived person connections. Furthermore, the majority of participants were female, potentially offering a particular gendered perspective in relation to donation and payment. Feminist scholars have argued that women are often socialized into being self-sacrificial and altruistic (Almeling, 2011; Degli-Esposti and Pavone, 2019), and this may colour their attitudes and concerns in relation to payment. Future research should thus aim to address this gap in gender representation. Furthermore, the views of donors (particularly sperm donors), recipients and donor-conceived adults whose circumstance of conception are directly relevant to discussions about donor payment are limited in this study, requiring replication with this type of respondent. Most participants were also New Zealand European or Australian European, thereby limiting generalization of findings to other ethnicities. It is also important to note that responses about concerns may, to some degree, have been shaped by culturally determined ethical attitudes (i.e. both New Zealand and Australia are societies shaped by public perceptions of organ and tissue altruistic donation and civic generosity, where financial inducements may be construed as morally reprehensible and commercially exploitative) (Hammarberg et al., 2011; Shaw, 2010; Tong et al., 2015). This may be of particular relevance in New Zealand, where indigenous Maori views of gametes as sacred, the embodiment of genetic lineage and worthy of protection (Glover, 2008) may have shaped community perceptions; indeed, the study results may have been influenced by the increased representation of New Zealand over Australian research participants. The participants’ views must also be considered against the backdrop of legislative frameworks/policy guidelines in both countries which prohibit payment, and which give significant consideration to the wellbeing of all parties involved in ART, particularly the children born as a result [Assisted Reproductive Technology Act 2007 (NSW); Assisted Reproductive Treatment Act 2008 (VIC); HART Act 2004; Human Reproductive Technology Act 1991 (WA); NHMRC, 2017].

Such legislative frameworks and fundamental philosophies about altruism may amplify concerns about payment of donors for ‘human acts’ priming a lower level of support for donor payment. Consequently, it is not surprising that the participants in this study, despite donor waiting lists, expressed concerns about payment. In the future, this study
should be replicated in regimes that routinely compensate for gamete donation in order to determine whether the levels of concern expressed about donor payment are similar to those expressed in altruistic regimes.

Finally, this study presented participants with a list of concerns that had been identified in previous research. Although space was given for participants to add additional concerns and to provide text responses, the limits of the questionnaire format precluded greater depth and insight. Future research could draw on interview data to add greater depth and extend the scope of research findings on payment concerns.

Conclusion

Globally, the demand for donor gametes exceeds the number of recipient families requesting gametes. Donor payment as a means to improve gamete shortages can present with concerns, and thus is important to explore in line with the principle of harm minimization as a strategy. Using a multistakeholder approach, this study highlights factors which predict concern, and which are important to consider in policy development in this area. Moreover, the findings represent useful points of discussion within the clinical counselling context. Donor payment that could attract donors who may not be forthcoming about relevant medical and lifestyle histories represented the over-riding concern. Mitigating this concern through screening programmes may be one option; however, given the preference for altruistic donations, enhanced public promotion of donor programmes that focus on altruism but which maintain the donor financial status quo may offer a way forward.

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