Towards Trans Reproductive Justice: A Qualitative Analysis of Views on Fertility Preservation for Australian Transgender and Non-Binary People

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Abstract

This paper draws on three Australian studies focused on views about fertility preservation among 1) parents of transgender and non-binary children, 2) transgender and non-binary adults, and 3) healthcare professionals working with transgender and non-binary people. The first two studies were undertaken concurrently given the dearth of research on the topic in the Australian context, and the third study was then undertaken given a primary focus on healthcare professionals in responses to the first two studies. For the present paper, a deductive thematic analysis framed by a reproductive justice lens was undertaken on qualitative data from each study. Findings from the first study suggest that whilst some parents may be supportive of their child's reproductive wishes, other parents may insist upon their child undertaking fertility preservation. In the second study, transgender and non-binary adults emphasized that gamete retrieval may be framed in cisgenderist ways by healthcare professionals, and that professionals may endorse pronatalism. Finally, healthcare professionals reported normative views about gamete retrieval, and framed fertility preservation as an 'insurance policy'. The paper concludes by considering what the findings have to suggest for the continued development of trans reproductive justice.

Keywords: reproductive justice, transgender, non-binary, fertility preservation, cisgenderism

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Different to reproductive rights – which focus on the legal mechanisms to which individuals may make recourse in order to reproduce – reproductive justice refers to the broader social contexts in which laws function (Luna, 2009). A reproductive justice approach emphasizes that whilst legislation may be inclusive, this does not mean that society is inclusive (Smith, 2005). People may be excluded from reproductive services due to their race/ethnicity, their gender, their sexuality, their income, their geographical location, and/or due to the attitudes of service providers (Sillman, Gerber Fried, Ross, & Gutiérrez, 2016). Reproductive justice, then, considers the intersections of rights, and the capacity of individuals to enact them, and includes a focus on the structural barriers that people face when trying to enact their reproductive rights.

One group of people who have recently been a focus of reproductive justice movements are transgender and non-binary people. Historically, transgender or non-binary people who undertook gender affirming treatments were required to submit to sterilization, with no opportunity for fertility preservation. Such a requirement served to reinforce negative messages about transgender and non-binary people which have long prevailed within psychology and medicine. Changes to the World Professional Association for Transgender Health (WPATH) *Standards of Care* in 2011, however, introduced a focus on the importance of offering transgender and non-binary people the option of undertaking fertility preservation before commencing gender affirming therapies that may impact upon fertility.

Yet while advocacy by WPATH was acted upon relatively quickly in some sectors, in some contexts clinicians have been restricted by laws that continue to require sterilization in order for a person's gender to be recognized. This was the case until recently in Sweden (Armuand et al., 2016) and in parts of the United States (Nixon, 2013), and remains the case

in 16 countries in Europe and Central Asia (Finland, Latvia, Czech Republic, Slovakia, Bosnia and Herzegoina, Serbia, Montenegro, Romania, Bulgaria, Georgia, Armenia, Azerbaijan, Turkey, Kazakhstan, Uzbekistan, and Tajikstan see Transgender Europe, 2019). The contexts in which transgender and non-binary people live is thus important for understanding the regulation of transgender and non-binary people's reproductive lives.

The studies reported in this paper draw upon Australian data. In most Australian states, in order for transgender and non-binary people to change their gender marker on their birth certificate, surgeries are required that often result in sterilization (Riggs, Due & Bartholomaeus, 2018). Certainly fertility preservation is possible; however, as previous Australian studies have indicated (e.g., Riggs & Bartholomaeus, 2018), fertility preservation for transgender and non-binary people is not covered by Australian public health insurance as it is not deemed 'medically necessary.' Fertility preservation is thus financially prohibitive for many people (Smith, Sundstrom & Delay, this issue).

In order to ensure that reproductive justice narratives are inclusive of transgender and non-binary people, Nixon (2013) suggests that such narratives must go beyond abortion, and instead also focus on the intersectional aspects of reproduction that can stop transgender and non-binary people from being able to: 1) have children when they want to, and 2) parent their children. Other writers have emphasized additional aspects of what has been termed 'trans reproductive justice' (Honkasalo, 2018; Lowik, 2017). These include the effects of cisgenderism (i.e., the ideology that delegitimizes people's own understandings of their bodies and genders, e.g., Ansara & Hegarty, 2013) in the provision of reproductive services to transgender and non-binary people, specifically where cultural expectations about gender and reproduction are linked to assigned sex rather than a person's gender. Cisgenderism may shape the perception that the storage of gametes by people assigned male at birth is 'easy' (with the retrieval of sperm seen as a simple and straightforward task), with storage of

gametes by people assigned female at birth by comparison seen as 'difficult', given the level of medical intervention required (Honkasalo, 2018). Yet despite the latter, people assigned female at birth are more readily targeted as 'naturally' wanting to reproduce, thus repeating not only cisgenderism, but also a pronatalist logic (i.e., the assumption that all people should want to reproduce, especially those able to bear children) (cárdenas, 2016).

A trans reproductive justice approach, then, not only speaks to the three points raised above as formulated first by women of color who developed the reproductive justice framework (Asian Communities for Reproductive Justice, 2005; SisterSong, 2003), but it builds upon this in relation to specific issues concerning transgender and non-binary people (National Latina Institute for Reproductive Health, 2013). Specifically, it challenges cisgenderism, and broadens the focus on the right to abortion to include a focus on the effects of pronatalism upon transgender and non-binary people, and especially people assigned female.

Drawing on the account of trans reproductive justice outlined above, we report on three qualitative Australian studies focused on transgender and non-binary people and reproduction. These studies were conducted given the dearth of research about transgender and non-binary people and fertility preservation in Australia, and moreover the dearth of studies that explore individual views of, and experiences in relation to, fertility preservation through the use of qualitative methods more broadly. The studies focused on views about fertility preservation among 1) parents of transgender and non-binary children, 2) transgender and non-binary adults, and 3) healthcare professionals who work with transgender and non-binary people. We begin by providing an overview of the literature on experiences of and views about fertility preservation for transgender and non-binary people (including both parents of transgender and non-binary young people and transgender and non-binary adults),

and experiences of service provision by healthcare professionals working in the field of fertility preservation for transgender and non-binary people.

Views of Fertility Preservation

There is currently only limited research on parents' views on fertility preservation for their transgender or non-binary children. Some research suggests that some transgender young people may undertake fertility preservation due to encouragement from their parents. Strang and colleagues (2018), for example, assessed the views of 25 transgender people in the United States who were between 13 and 19 years old, and one of their parents. Their results indicated that about 65% of parent participants hoped their children would have children in the future, with 21% of parents reporting they would be disappointed if their child did not have a child to whom they were genetically related. In addition, Strang and colleagues found that nearly 25% of the young people reported feeling pressured by their parents to have children to whom they would be genetically related. Chiniara and colleagues (2017) found in their Canadian study of 61 young people and 56 parents that whilst children and parents had similar current priorities, parents ranked having children as a higher priority in the future. Other studies have found that parents and their children have similar views on fertility and fertility preservation (Lawlis et al. 2017; Walton-Betancourth et al. 2018). Papers that have focused on single hypothetical or composite cases also show the impact of parents' wishes for their children to undertake fertility preservation (e.g., Nahata et al., 2018), including where parents disagree (Quinn et al., 2018).

In terms of studies that focus on transgender and non-binary adults' experiences with, and views of, healthcare professionals in the context of fertility preservation, such studies suggest that healthcare professionals typically do not provide enough information about fertility preservation to transgender and non-binary people in order to make informed decisions. For example, both a German study with 189 transgender adults (Auer et al. 2018)

and a Canadian study with 213 transgender adults (Kim et al. 2017) found that a significant number of participants reported not undertaking fertility preservation in part because they had not been made aware of it by treating healthcare professionals. Conversely, James-Abra and colleagues' (2015) Canadian study explored transgender adults' experiences with assisted reproduction services (including for fertility preservation), and found that positive experiences with providers and clinics (including the use of gender-neutral terminology) meant that clinic environments were perceived as trans-friendly.

Finally, there is limited research on healthcare professional knowledge, attitudes, and beliefs towards fertility preservation for transgender and non-binary people. Chen and colleagues (2019), reporting on a survey of over 200 healthcare providers who worked with transgender people, found that overall fertility-related knowledge was high, although physicians had significantly higher knowledge than mental health providers. Drawing on the same survey, Tishelman and colleagues (2019) highlight that providers noted that they themselves were potential barriers to fertility preservation (due to a perceived lack of knowledge about fertility preservation and a lack of research to draw on), as well as the need for clearer guidelines for how to discuss fertility preservation with patients. Interviews with healthcare professionals in a reproductive medicine clinic in Sweden also highlighted the difficulties of unlearning cisgenderism and relearning more inclusive strategies for working with transgender people (Erbenius & Payne, 2018).

Research Questions

Drawing on the research summarized above, and specifically the trans reproductive justice approach outlined by Nixon (2013) and Honkasalo (2018), we report the findings of three studies. The first two studies, run concurrently, focused on views about and experiences with fertility preservation among parents of transgender and non-binary children and transgender and non-binary adults. Analysis of quantitative and qualitative data from these

two studies (Bartholomaeus & Riggs, 2019; Riggs & Bartholomaeus, 2018) indicated that experiences with healthcare professionals were key to fertility preservation outcomes, so a third study was undertaken to explore the views of healthcare professionals who work with transgender and non-binary people in regards to fertility preservation. Using deductive qualitative analyses, we sought to answer the following questions:

1. What impacts do cisgenderism and pronatalism have on understandings of fertility preservation for transgender and non-binary people?
2. How do gendered assumptions impact on how fertility preservation for transgender and non-binary people is framed by this population group and healthcare providers?
3. Does pronatalism shape understandings of fertility preservation for transgender and non-binary people?

Reflexivity

We are two cisgender researchers who over the past decade have undertaken research with transgender and non-binary people. Our research in the area began with a request from a community group to undertake research on the health experiences of transgender people, and from there extended to community-driven research on parenting, relationships, reproduction, and most recently fertility preservation. Each of these topics was suggested to us by community members, who helped to refine and develop the focus of each project. Nonetheless, we are mindful that as cisgender people we do not occupy an insider status in terms of transgender and non-binary people's lives.

Study 1

Participants

Ethics approval was granted by the authors' institution. Parents of transgender and non-binary children were recruited through Australian organizations, including Transcend,

Parents of Gender Diverse Children, and Rainbow Families between January and March 2018. Participants were invited to respond to an online survey focused on fertility preservation for transgender and non-binary children. Before commencing the survey potential participants were provided with a detailed information sheet. They were then asked to give consent to participate in the survey. Of the 78 people (77 parents and 1 grandmother) who participated in the study, 66 responded to the open-ended questions and were included in the analysis. The demographic characteristics of these participants are included in Table 1.

Measures

Participants were asked to provide information about the age of their transgender or non-binary child, the gender of their child, and whether their child had undertaken fertility preservation (see Table 1). Depending on participant responses to the last question, participants were then directed to one of two pages. Participants who indicated that their child had undertaken fertility preservation were invited to respond to open-ended questions including how they and their child made a decision to undertake fertility preservation, and their views on their child's experience with the clinic where fertility preservation was undertaken. Participants who indicated their child had not undertaken fertility preservation were invited to respond to open-ended questions including how they and their child made the decision not to undertake fertility preservation.

Data Analysis

Open-ended survey responses were analyzed thematically using a deductive approach guided by a trans reproductive justice theoretical lens. The research questions that were a focus of the deductive analysis were not a focus of the three studies *per se*. As such, it is notable that many of the participants oriented to issues germane to the present paper absent of a specific provocation to do so. In other words, the topic of reproductive justice arose from

participants' responses. This suggests that reproductive justice was important to many of the participants in the three studies.

The deductive analysis adopted a constructionist thematic analysis approach as outlined by Braun and Clark (2006). Such an approach is mindful of the fact that researchers may wish to test their data against specific predetermined theoretical lenses (in this case trans reproductive justice). However, as a constructionist approach, the purpose is not *per se* to demonstrate the 'truth' of the data, but rather to look at how particular themes are made salient within a broader context. The salience of context is pertinent to the present paper, given our focus on how broader institutional forces, and specifically cisgenderism, shape views on fertility preservation for transgender and non-binary people.

Following the approach to thematic analysis outlined by Braun and Clarke (2006), then, the data were first examined to identify potential extracts that pertained to two key codes related to trans reproductive justice, namely 1) the right to reproduce, and 2) the right not to be subjected to pronatalist injunctions to reproduce. Other aspects of trans reproductive justice (such as the right to raise children safely) were not considered given that the data did not include a focus on these aspects. When coding the data, attention was also paid to gender differences, given that accounts of trans reproductive justice emphasize how pronatalist injunctions are differentially placed upon transgender women, transgender men, and non-binary people according to cisgenderist assumptions about a relationship between assigned sex and gender. Given limitations to the data in terms of demographic information collected, it was these three areas (cisgenderism, gender, and assigned sex) on which the intersectional analysis of the data focused. Here we followed Warner (2008), who has outlined best practice approaches for undertaking intersectional analyses, which emphasize the importance of identifying the most salient or available points of intersection, rather than attempting to address all points of intersectionality.

After identifying data which fit into the two key codes outlined above, the data set was analyzed for key themes. As Braun and Clarke (2006) suggest, this process involved a process of repeated readings of the data, identifying potential themes, checking potential themes against the data set to ensure they were representative, naming and refining themes, and identifying indicative extracts to include in the results. Although Braun and Clarke do not mandate either inter-rater checks or member checking, both authors were involved in the analysis of the data set, and confirmed the final thematic structure. The second author took the lead in developing themes for Study 1, which were reviewed and confirmed against the data set by the first author. Given the anonymous nature of Study 1, member checking was not possible. Throughout the process of developing themes, the authors were mindful of what Saunders and colleagues (2018) refer to as *a priori thematic saturation.* This was achieved in terms of the deductive analytic focus on two specific aspects of trans reproductive justice, as outlined earlier.

Data extracts included in the results are intended to be indicative of the extracts for each theme, rather than exhaustive of all extracts. Minor typographical and spelling errors have been corrected in the responses where relevant, as the participants did not have the benefits of spell check. Descriptors used for participants from Study 1 were those used in the survey, where the terms ‘female’ and ‘male’ were used to refer to women and men respectively (i.e., to refer to gender, rather than assigned sex).

Results and Discussion

Supporting children’s reproductive wishes. This first theme highlights that in some instances participants appeared to support their children’s reproductive wishes, whether that was to have children in the future, to preserve fertility as a possible option in the future, or to not want genetically related children or children at all. This theme is important in highlighting that reproductive justice includes parents supporting, and sometimes fighting

for, their children's rights to either have the chance to have (genetically related) children or to *not* have (genetically related) children. For example, the following participant highlighted their support for their child who wanted to undertake fertility preservation:

> It was something we discussed as a family and was something she really wanted. Financially it was difficult for us on top of her other medical expenses. I phoned around to get quotes and find a trans friendly fertility clinic, so that she didn't have to face the distress of going through that (parent of female child, age 18, currently taking hormones, had undertaken fertility preservation)

It was also the case that some participants supported their children's desire *not* to have genetically related children, such as was the case for the following participant:

> This was my child's decision. He feels that should he want children in future, there are many ways to achieve this that do not mean his own biology. He is not interested in his own children. I don't consider it my decision to make. (parent of male child, age 15, currently taking puberty blockers, had not undertaken fertility preservation)

Alongside being supportive of their children's desires relating to reproduction, this theme also highlights the importance of parents and children discussing fertility options and desires, as well as having enough information to talk this through.

Pronatalist messages from parents. Whilst participants included in the first theme were supportive of their child's desires and decisions around fertility preservation, it was also the case that some participants encouraged their children to undertake fertility preservation, either explicitly or implicitly. For example, the following two participants reported that they 'insisted' and 'encourage[d]' their child to undertake fertility preservation:

> When the child is only 17 they don't really know whether they will want kids. I insisted that my daughter preserve her gametes just in case she changed her mind in

> the future and wanted kids. She is now 21 and still doesn't know. (parent of female child, age 21, currently taking hormones, had undertaken fertility preservation)
>
> My child was 20 at the time and not interested in preserving fertility but she has a cisgender cousin who was using donated sperm to have a child at the time and this helped us to encourage her to preserve her fertility. (parent of female child, age 23, currently taking hormones, had undertaken fertility preservation)

Although only a small number of participants had children who had already undertaken fertility preservation, several were looking into it for the future and some had children who had already attempted fertility preservation or had stopped during the process. Again, for some of these participants there was acknowledgement that they were the drivers of seeking fertility preservation, such as the following participant:

> To be honest, this was mostly instigated by me. When [child] was under 18 doctors kept saying let's do this at 18. I wanted it dealt with sooner, as I had read that convincing someone who had began transitioning to stop to then preserve fertility was more difficult than sorting it out first. (parent of child who is non-binary to some people and female to others, age 18, currently taking hormones, had not undertaken fertility preservation)

Finally, it is important to note that some participants had strong desires for their child to undertake fertility preservation so that their children had the chance of having genetically related children in the future, though did not clearly state in their responses whether or not they had directly mentioned this to their child.

Balancing gender dysphoria and fertility preservation. The final theme draws on participant responses that expressed concern about the difficulties of fertility preservation for children due to gender dysphoria. In some cases this could be seen as recognition that their child's dysphoria, particularly in the present, outweighed any concerns about the (potential)

loss of fertility in the future. However, for some participants this privileging of dysphoria over fertility may have meant they did not discuss fertility with their child due to fear of distressing them further. For example, some participants seemed to have discussed fertility with their children, who had privileged gender transition over fertility preservation:

> My child was not prepared to cease treatment in an attempt to preserve fertility due to levels of dysphoria (parent of female, age 13, taking puberty blockers, had not undertaken fertility preservation)
>
> I wish there was a way to have it stored that was able to cater to the child's affirmed gender i.e. not go through any puberty. He feels that if he were to stop blockers he will have undone everything he has worked so hard to not have to endure (parent of male, age 13, taking puberty blockers, had not undertaken fertility preservation)

However, other participants more simply said that their child's dysphoria outweighed the need for fertility preservation:

> We still hope to go ahead with a pre-pubertal testicular biopsy. We understand this is still considered experimental, however for us our child's current mental health far outweighs her future potential fertility. (parent of female, age 11, had not undertaken fertility preservation)
>
> I asked at the gender clinic prior to starting blockers and they couldn't really answer what had to be done. Just said will have to go off blockers before starting hormones and give a sample. This would not be acceptable for my gender dysphoric child. (parent of female, age 12, taking puberty blockers, had not undertaken fertility preservation)

It is unclear if these participants discussed the potential option of fertility preservation with their children (or took them to a healthcare professional who did), or whether fertility had not been discussed with their children at all. If informed discussions around fertility were

not undertaken with their children, then this is another way in which transgender and non-binary people may be denied the chance to have the future possibility of genetic parenthood. It is also notable that participants included in this theme often had children of a young age who were currently on puberty blockers, highlighting the difficulties of discussing fertility options with children whose only option for fertility preservation is to store tissue, which is currently experimental.

Study 2

Participants

Ethics approval was granted by the authors' institution. Transgender and non-binary adults were recruited through Trans Health Australia, Transgender Victoria, and the LGBTI Health Alliance between January and March 2018. Participants were invited to respond to an online survey focused on fertility preservation for transgender and non-binary adults. Before commencing the survey potential participants were provided with a detailed information sheet. They were then asked to give consent to participate in the survey. Of the 409 people who participated in the study, 295 responded to the open-ended questions and were included in the analysis for the present paper. Responses to demographic questions for these 295 participants are included in Table 2, in addition to responses to a question asking whether or not they had undertaken fertility preservation.

Measures

Participants who indicated they had undertaken fertility preservation were asked whether they had received advice or counselling prior to undertaking fertility preservation and, if so, what that involved, how they made the decision to undertake fertility preservation, and what were the positive and negative aspects of their experiences with the clinic where they had undertaken fertility preservation. Participants who indicated they had not undertaken fertility preservation were asked whether they had received advice or counselling about

fertility preservation and, if so, what that involved, and how the decision was made not to undertake fertility preservation.

Data Analysis

The analysis of qualitative data from Study 2 followed the approach outlined for Study 1. The first author took the lead in developing themes for Study 2, which were reviewed and confirmed against the data set by the second author. Given the anonymous nature of Study 2, member checking was not possible. . Descriptors used for participants from Study 2 were those used in the survey, where the terms 'female' and 'male' were used to refer to women and men respectively (i.e., to refer to gender, rather than assigned sex).

Results and Discussion

Intersections of gender, distress, and cisgenderism. This first theme includes participants who spoke about the intersections of gender, cisgenderism in the context of reproduction, and the potential distress associated with both in terms of fertility preservation. Specifically, participants assigned female at birth (including both transgender men and non-binary people) reported cisgenderism apparent on the part of healthcare providers (see also LaMarre, Rice, Cook & Friedman, this issue), in the form of the expectation that people assigned female should wish to reproduce:

> I understand why it's important to receive fertility advice but I feel like the counselling I received over-emphasised the importance of parenthood, especially genetic parenthood. I'm [assigned female at birth] and have never wanted to have children and that decision has been consistently undermined (including by doctors who refused me pre-transition sterilisation procedures). The insistence that I consider fertility preservation (and narratives about parenthood, family, that I would be unfulfilled or regret my decision if I didn't) were very much consistent

> with the kinds of responses I would receive being a child-free 'woman'. (non-binary, age 28, had not undertaken fertility preservation)

Other non-binary participants too emphasized the idea that cisgenderism appeared to shape views on fertility preservation, such as is evident in the following example:

> I believe [fertility preservation] should be offered as an option, but in a sensitive manner because these options or decisions can often feel like the person is being guilted or pressured into preserving their fertility in order to be able to have a genetically related child. I would argue this is particularly true for AFAB people, as it often feeds into the old fashioned and toxic idea of 'every female wanting to be a mother'. (non-binary, age 24, had not undertaken fertility preservation)

Turning to consider transgender women, a number of participants noted that whilst they had undertaken fertility preservation, the process of retrieving gametes had been a distressing experience. This was potentially related to their own experiences of their gender, which are of course situated within broader cisgenderist contexts where normative assumptions are often made about the relationship between bodies and genders:

> It was one of the hardest things I think I have had to do, masturbate in a clinical environment. I find it hard enough looking at my penis let alone having to ejaculate on demand. It took me a long time and I was embarrassed about everything (female, 32, had undertaken fertility preservation).

For other participants, such as in the following example, the idea of storing gametes that they did not feel were reflective of their gender prevented them from undertaking fertility preservation:

> For me having been born a man and to have sperm frozen for later use I think would harm my mind because I did not have an egg to be fertilised at a later date and then carry and bear a child. Even if I did store sperm I don’t know if that

> would make me the mother of a child even though I helped (female, 60, had not undertaken fertility preservation).

Responses such as these challenge the simplistic assumption that fertility preservation is somehow 'easier' for transgender people assigned male at birth. Instead, the second two examples included here, which are indicative of other participant responses, suggest that both the process of fertility preservation for transgender women, and the thought of undertaking fertility preservation, can evoke concerns that themselves may be the product of cisgenderism and its normative framing of bodies and genders.

Pronatalism and decision making about reproduction. This second theme builds on the first by focusing on broader pronatalist assumptions about reproduction as they are potentially experienced by transgender and non-binary people. Whilst the first theme focused on how fertility preservation is differentially directed towards and experienced by transgender and non-binary people on the basis of cisgenderist assumptions, this second theme highlights how some of the participants spoke about interactions with healthcare professionals in regards to fertility preservation that could be seen as evoking pronatalist assumptions. One subtle form of pronatalism evident in reports by participants was the suggestion that fertility preservation should be viewed as akin to a 'back up plan':

> I do not want children at all, and I feel that preservation 'in case you change your mind' is demeaning to me as it feels like doctors are second-guessing my decision and trying to instil doubt in me. (non-binary, age 32, had not undertaken fertility preservation)

For both the participant above and the one below, whilst they do not suggest that healthcare professionals explicitly told them that they *should* reproduce, there is nonetheless an implicit message, namely that there should at the very least be a *desire* to reproduce. Such a desire arguably reflects the broader context of pronatalism, as the following quote suggests:

> People who indicate they don't want biological children should have their wishes respected. A lot of doctors seem far too focused on retaining the viability of reproductive organs in case the owner changes their mind. (male, age 34, had not undertaken fertility preservation)

Other participants were appreciative of the importance of presenting transgender and non-binary people with the option of fertility preservation, but emphasised that a focus on reproduction should not be an overriding focus in interactions with healthcare professionals:

> People shouldn't be boxed into the idea that 'fertility' is the end of the world, or the be-all-end-all. You can always explore adoption, fostering or surrogates if that's accessible to you, and you can also be entirely valid in knowing that kids aren't in your future. So yes, doctors should ensure their patients are fully informed on the path they're going down and the options available to them. But fertility preservation shouldn't be emphasised as the only possible decision. (male, age 26, had not undertaken fertility preservation)

Again, whilst the participant does not specifically speak about pronatalism, their views on interactions with healthcare professionals clearly indicate that any efforts at 'boxing in' would in effect constitute a form of pronatalism that should be avoided.

Study 3

Participants

Ethics approval was granted by the authors' institution. Participants ($N = 7$) were recruited from the Society for Australasian Sexologists and the Australian and New Zealand Professional Association for Transgender Health. To be included in the study potential participants needed to be currently providing counselling prior to treatments that may impact on fertility or fertility preservation itself, or providing fertility preservation services. Interviews for the third study were conducted from October to December 2018. Ahead of the

interviews, participants were provided with a detailed information sheet, and were asked to complete a consent form and demographic form, responses from the latter are outlined in Table 3. Participants were located in four different States/Territories across Australia.

Method

During the interviews participants were asked four questions about their experiences with, and views about, providing fertility preservation to transgender and non-binary people. These questions canvassed 1) perceived needs of transgender and non-binary people in regards to fertility preservation, 2) how participants talk about fertility preservation with transgender and non-binary people, 3) how participants engage with partners/families/parents of transgender and non-binary people, and 4) perceptions of best practice with regards to reproductive care for transgender and non-binary people. All interviews were conducted via telephone by the second author and were audio recorded, with interviews lasting 25 minutes on average. All interviews were transcribed by a professional service.

Data Analysis

The analysis of interview data from Study 3 followed the approach outlined for Study 1. The first author took the lead in developing themes for Study 3, which were reviewed and confirmed against the data set by the second author. For the third study, participants were informed prior to undertaking an interview that they could review their transcripts. For interview extracts included in the results below, demographic details are not provided for each of the participants given the small sample and the potential for identification.

Results and Discussion

Normative gendered assumptions about fertility preservation. Across the healthcare professional interviews participants repeatedly framed fertility preservation for both transgender men and non-binary people assigned female at birth as ‘difficult’ (including the invasiveness of the procedures and financial costs). By using transgender men and non-binary

people assigned female at birth as a counterpoint, fertility preservation for transgender women and non-binary people assigned male at birth was often framed as 'easy,' or at least 'easier' by comparison. When talking about fertility preservation for transgender men, for example, participants made statements such as:

> Well it's obviously a much more complicated medical process for [transgender men] to have fertility preservation because they need to have a minor surgical procedure and some hormonal stimulation beforehand. So it's more costly, it's more invasive and because it's invasive it can be more confronting psychologically as well as medically.

By comparison, and in diverse ways, participants suggested that fertility preservation for transgender women is less complicated, less invasive, and thus implicitly less psychologically confronting:

> For [transgender women] it's a more straightforward process, so they tend to agree to have fertility preservation more readily. It's a little bit easier to masturbate into a cup to produce a sperm sample than it is to have a general anaesthetic and ovarian stimulation and harvest.

Another participant similarly stated that "Well, trans women, as I said, it's a lot easier for them, it only takes a couple of weeks to get that side of things sorted". One participant did note that transgender women may find fertility preservation "psychologically distressing… because they do not want to do the process of masturbation and stuff", however they still went on to suggest that "overall medically it's much easier for the sperm collection compared to egg collection which is [a] more invasive process".

Whilst at a simplistic medical level the retrieval of sperm may *seem* easier than the retrieval of eggs, it is often not easy for people to do this, as participants included in the first theme of Study 2 would suggest. It is not simply that sperm retrieval may be psychologically

distressing for transgender women, but it is also true that the psychological is not easily separated from the medical (Riggs, 2020). The point is not to equate sperm and egg retrieval, but rather to suggest that separating psychological and medical aspects is not necessarily a useful way of thinking about the challenges that transgender and non-binary people may face when undertaking fertility preservation.

Fertility preservation as an 'insurance policy'. In many ways guided by the WPATH (2011) *Standards of Care*, many of the participants appeared to view fertility preservation as something to be carefully encouraged when working with transgender and non-binary people. Despite acknowledging the differing challenges outlined in the first theme above, participants oriented to the idea that fertility preservation served as an 'insurance policy' should transgender and non-binary people decide at a later date that they wish to have children to whom they are genetically related. For example, one participant was aware that encouraging fertility preservation could be viewed as gatekeeping, however framed it as an 'opportunity':

> Some patients think that it's a gatekeeping or stalling exercise and that being asked to preserve fertility is just a way to put off putting someone on hormones. So I do try to make it very clear to people that that's not my intention, it's really just because it's their one and only opportunity to do that if they want to.

Other participants acknowledged potential challenges associated with fertility preservation (which were framed primarily in terms of medical risks, not in terms of gender-related distress), but still encouraged transgender and non-binary people to preserve their fertility:

> So what I tell them, it's basically – you know, it's like an insurance policy, you undergo an operation and there's a small risk involved in having a complication or a problem after the procedure, but you're doing it to potentially give yourself

the option down the track, which you would not have if you didn't have tissue stored.

Some participants acknowledged that transgender and non-binary people may not actually end up becoming parents, but that fertility preservation was still a useful pragmatic decision to make: "I talk about fertility preservation as an insurance policy rather than, you know, an absolute commitment to parenthood". For one participant who worked with transgender and non-binary young people, there was acknowledgement that the view that fertility preservation constitutes an 'insurance policy' may be promoted by parents: "what usually happens with young people is that their parents push them into doing that, if the parents are convinced that that's a necessary option to have in the future." However, other participants suggested children and parents more often had similar views on fertility preservation.

Participants thus seemed clear that there could be multiple outcomes arising from fertility preservation. These included 1) potential (medical) complications or problems, 2) transgender and non-binary people feeling that healthcare professionals were gatekeeping services, 3) transgender and non-binary young people feeling pressured by their parents (which may be endorsed by healthcare professionals) to undertake fertility preservation, 4) stored gametes not being used, and 5) stored gametes potentially being used. Given that only the last of these outcomes directly translates into (the possibility for) the conception of a child, it is reasonable to suggest that, at least to a degree, pronatalist assumptions may inform the views of healthcare professionals, views that to some extent are enshrined in the WPATH *Standards of Care* (2011), an issue that will be explored in the discussion below.

General Discussion

The findings reported in this paper both echo and extend the limited previous research on views about fertility preservation for transgender and non-binary people. For parents of

transgender and non-binary children (Study 1), the finding that some parents are supportive of their children's reproductive wishes, and that other parents potentially assert their own wishes over those of their children (thus potentially denying their right to reproductive autonomy), echoes previous research (e.g., Chiniara et al. 2017). These findings highlight how reproductive justice can include supporting people's rights to have (or not have) a chance to have children, as well as highlighting how children may face an injunction to reproduce in the future even when this is against their expressed wishes. Building on this, the findings also suggest a contrast between parents who ensure that their children are adequately informed about fertility preservation options, and parents who, for a range of reasons (including not wanting to compound a child's perceived dysphoria), may gatekeep information. Certainly, it may be the case that the latter is a product of developmental concerns related to young children's capacity to understand information provided to them. At the same time, however, it is important not to make developmentalist assumptions about children's understandings, particularly in such a significant area as fertility preservation. Instead, and as we discuss further below, what are required are conversations led by healthcare professionals that are focused on ensuring that children can make informed decisions, rather than defaulting to the views of parents.

Findings from the survey of transgender and non-binary adults (Study 2) add further weight to the trans reproductive justice focus upon cisgenderist assumptions about reproduction (cárdenas, 2016; Honkasalo, 2018). Specifically, participants assigned female at birth often reported feeling pressured to undertake fertility preservation, despite this not being their wishes. By contrast, transgender women resisted the assumption that fertility preservation is somehow easier for them, instead stating clearly that it can be highly distressing, perhaps at least in part due to cisgenderism and normative assumptions about gamete retrieval (and indeed the often normative gendered meanings accorded to gametes).

Additionally, the findings from the survey highlight that an implicit emphasis on pronatalist messages about reproduction may fail to adequately address other pathways to parenthood (and of course fail to acknowledge that parenthood is not mandatory). Pronatalism, whether implicit or explicit, of course intersects with cisgenderism, such that normative assumptions about reproductive bodies shape how pronatalist messages may be directed, based on a person's assigned sex rather than their gender. Specifically, and in the context of reproductive justice, we might suggest that certain bodies (primarily those assigned female at birth) are those towards whom pronatalism is most likely to be directed, even if assumptions about sexed bodies are no reflection of the individual's gender. This, then, highlights the importance of a trans reproductive justice approach that doesn't solely focus on women, but also focuses on how transgender men and non-binary people are likely affected by normative assumptions about reproduction

Finally in terms of the findings, the interviews with healthcare professionals (Study 3) substantially differ from previous research, which has emphasized a general sense of lacking knowledge for working with transgender and non-binary people in the field of fertility preservation (e.g., Tishelman et al., 2019). The healthcare professionals interviewed, by contrast, appeared well informed about fertility preservation for transgender and non-binary people. This may reflect their self-selection to participate in an interview, but more broadly may reflect differences between the Australian context and other contexts, such that in the Australian context healthcare professionals, or at least those interviewed, may have received greater exposure to information about trans-inclusive practice. Despite this, the participants often emphasized normative assumptions about the relative difficulty or ease of fertility preservation, thus implicitly reducing any potential distress associated with fertility preservation to medical aspects, in effect ignoring psychological aspects. Healthcare professionals also emphasized fertility preservation as an 'insurance policy,' which is broadly

in line with the WPATH *Standards of Care* (2011). This may, however, be problematic from a reproductive justice perspective, as it can overemphasize the importance of fertility preservation, at the expense of centering the individuals' right to reproductive decision making.

Our findings have clear implications for the WPATH *Standards of Care* (2011), which are currently under revision. In regard to transgender and non-binary young people, it would appear to be the case that healthcare professionals working with families need to ensure that young people are adequately informed about fertility preservation options, and that young people are not unduly pressured by their parents. This requires targeted training for healthcare professionals so as to ensure that discussions are evidence based, mindful of the barriers that transgender and non-binary young people may experience in terms of listening to information about fertility preservation. Information provision to young people must be mindful of the potential intersections of gender dysphoria and conversations about fertility preservation, but this should not prevent sensitive conversations from occurring. Such conversations should be mindful of the differing fertility preservation options available to children who are in receipt of puberty suppression, as compared to children who have gone through puberty. Conversations about fertility preservation are likely to be significantly different between these cohorts, with the former largely limited to tissue preservation, and the latter having greater options for fertility preservation, though such greater options may bring with them concerns or potential distress such as those voiced by participants in the second study (e.g., in regards to dysphoria). These differences require clinicians to have well-developed skills for speaking with young people about fertility and reproduction, in ways that are not cisgenderist, and that recognize that young people are capable of engaging in conversations about matters that directly affect their lives.

For transgender and non-binary adults, it would seem important that healthcare professionals are aware that whilst talking about fertility preservation is an important aspect of ensuring trans reproductive justice, this conversation should not slip into a pronatalist injunction for all transgender and non-binary people to undertake fertility preservation (or wish to reproduce at all). It also means that healthcare professionals should discuss multiple potential pathways to parenthood, including foster care, adoption, and the use of donor gametes. Certainly, for the participants in all three of the present studies, there was a trend towards more trans-inclusive approaches. This does not mean, however, that all transgender and non-binary people (and their families) will receive, and all healthcare professionals will provide, trans-inclusive approaches. There is thus the need for ongoing training for healthcare professionals, including fertility specialists, in order to ensure that all transgender and non-binary people receive inclusive care (including in regard to awareness about the central importance of the potential psychological effects of fertility preservation with regards to gender dysphoria). As we have suggested, such care should be informed by an understanding of trans reproductive justice, such that transgender and non-binary people are able to make informed decisions about reproduction, not be unduly pressured into fertility preservation or reproduction, and that, should they wish to reproduce, that their parenting rights are supported. These are all areas that may usefully be addressed in the revised WPATH *Standards of Care*.

These recommendations for revisions to the WPATH *Standards of Care* (2011), as guidelines endorsed in many countries across the world for healthcare professionals working with transgender and non-binary people, represent a significant opportunity for working towards trans reproductive justice. Additional areas of trans reproductive justice that should also be addressed include the provision of transgender and non-binary inclusive abortion services (Lowik, n.d.), and the provision of clear information to transgender and non-binary

people in regard to fertility preservation that addresses potential outcomes. It is one thing to make fertility preservation available (including in terms of associated financial costs and advocacy for public health coverage), but it is another thing to acknowledge that outcomes of assisted reproductive technologies are variable, and in some areas (such as tissue storage) may not yet be available in terms of creating human life. Trans reproductive justice, then, is both about ensuring that people can make decisions about their fertility, but also that they have sufficient information so as to make *informed* decisions. This requires specific knowledge about transgender and non-binary specific aspects of reproduction. This is clearly a matter of reproductive justice, given informed consent about reproduction is only possible in relation to both a broader social context and in the specific context of interactions with healthcare professionals where transgender and non-binary people are seen as having the right to reproductive autonomy.

Limitations

In terms of limitations, it is important to acknowledge that Study 1 included the views of parents but not the views of children and young people. Whilst a small number of studies have included the views of children and young people (e.g., Brik et al., 2019; Chen et al., 2017, 2018; Nahata et al., 2017), these have primarily involved retrospective case analyses. Further research is thus needed that considers the views of children and young people. Another limitation is that data were not collected about participant income or ethnicity. In Australia, there do not exist widely used ethnicity categories for research purposes, which is different to countries such as the United States and the United Kingdom. It is thus unknown whether or not participants were in diverse in ways beyond gender, age, and sexuality. It may be the case that views on fertility preservation differ according to other forms of diversity (e.g., ethnicity), thus constituting another avenue for future research.

This point about diversity is especially important given the reproductive justice framework we used, a framework grounded in the lives of women of color (Asian Communities for Reproductive Justice, 2005; SisterSong, 2003). Indeed, women of color from transgender and non-binary communities have similarly emphasized the specificities of trans reproductive rights (e.g., cárdenas, 2016), including the right simply to be alive so that reproductive options are even imaginable. Issues related to the often significant financial costs associated with fertility preservation may be compounded for groups of transgender and non-binary people facing multiple forms of marginalization. Certainly for many of the participants in the first two studies, fertility preservation was a potentially viable option. For many other participants, however, and especially those who were younger and who had limited income, fertility preservation was beyond their reach (Riggs & Bartholomaeus, 2018). This is, then, an issue of reproductive justice: fertility preservation that is unaffordable or inaccessible for many transgender and non-binary people constitutes a failure of trans reproductive justice. As noted earlier, in the Australian context fertility preservation is a user-pay system (despite broader social healthcare). Addressing trans reproductive justice in the Australian context, then, requires legislative and policy changes that ensure all transgender and non-binary people can, should they wish, access fertility preservation.

Conclusion

In terms of trans reproductive justice, and as the present findings suggest, transgender and non-binary people's needs in terms of fertility preservation are shaped by individual decisions and desires that are facilitated or constrained by broader social forces, including cisgenderism, pronatalism, and the availability of services. As one healthcare professional interviewed noted, it is difficult to truly know how many transgender and non-binary people might wish to reproduce, or at least undertake fertility preservation, absent of the considerable social prohibitions placed on transgender and non-binary people as potential

future parents. Trans reproductive justice, then, requires not simply that opportunities such as that represented by fertility preservation are made available, but that broader social forces that potentially limit or regulate decision making are challenged. Otherwise, opportunities for fertility preservation will remain the province of transgender and non-binary people who are well supported by both loved ones and healthcare professionals, as well as being financially resourced, leaving out significant numbers of transgender and non-binary people who, if broader social forces were different, might also make the decision to preserve their fertility.

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Table 1

Demographics for Parents and Their Transgender or Non-binary Children (N=66)

	Category	*n (%)*
State or Territory	Australian Capital Territory	1 (1.5)
	New South Wales	12 (18.2)
	Northern Territory	1 (1.5)
	Queensland	8 (12.1)
	South Australia	14 (21.1)
	Tasmania	2 (3.0)
	Victoria	23 (34.8)
	Western Australia	5 (7.6)
Parent's gender	Female	64 (96.9)
	Non-binary	1 (1.5)
	Agender	1 (1.5)
Parent's age (years)	Mdn=45, SQR=8, Range = 26 - 62	
Parent's sexuality	Heterosexual	54 (81.8)
	Bisexual	5 (7.6)
	Lesbian	2 (3.1)
	Pansexual	4 (6.0)
	Queer	1 (1.5)
Child's gender	Female	34 (54.6)
	Male	27 (36.4)
	Non-binary	4 (9.0)
	Trans feminine	1 (1.5)
Child's age (years)	Mdn=13, IQR=4, Range = 4 - 21	
Child has undertaken fertility preservation	Yes	12 (18.2)
	No	54 (81.8)

Table 2

Demographics for Transgender and Non-binary Adults (N=295)

	Category	*n* (%)
State or Territory	Australian Capital Territory	4 (1.4)
	New South Wales	60 (20.3)
	Northern Territory	3 (1.0)
	Queensland	79 (26.8)
	South Australia	37 (12.5)
	Tasmania	20 (6.8)
	Victoria	82 (28.8)
	Western Australia	10 (3.4)
Gender	Female	72 (24.4)
	Male	100 (33.9)
	Non-binary	102 (34.6)
	Agender	21 (7.1)
Sexuality	Heterosexual	26 (8.8)
	Bisexual	49 (16.6)
	Gay	20 (6.8)
	Lesbian	27 (9.2)
	Pansexual	71 (24.1)
	Queer	79 (26.8)
	Asexual	23 (7.8)
Age (years)	Mdn=25, IQR=12, Range=18 - 72	
Undertaken fertility preservation	Yes	26 (8.8)
	No	269 (91.2)

Table 3

Demographics for Healthcare Professionals (N=7)

	Category	*n* (%)
Gender	Female	6 (85.7)
	Male	1 (14.3)
Profession	General practitioner	2 (28.5)
	Other medical specialisation	3 (43.0)
	Mental health	2 (28.5)
Age (years)	Mdn=45, IQR=9, Range=31 - 57	
Length of time practicing (years)	Mdn=17, IQR=5, Range=6 - 23	
Length of time working with transgender and non-binary people (years)	Mdn=7, IQR=12, Range=3 - 22	

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