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Intended parents' motivations and information and support needs when seeking extraterritorial compensated surrogacy




Karin Hammarberg ^{a,b,*}, Martyn Stafford-Bell ^c, Sam Everingham ^d

^a Jean Hailes Research Unit, School of Public Health and Preventive Medicine, Monash University, Victoria, Australia; ^b Victorian Assisted Reproductive Treatment Authority, Victoria, Australia; ^c Canberra Fertility Centre, Canberra, ACT, Australia; ^d Surrogacy Australia, Sydney, NSW, Australia

* Corresponding author. E-mail address: karin.hammarberg@monash.edu (K Hammarberg).



Karin Hammarberg, RN, BSc, PhD was the co-ordinator of IVF programmes in Sweden and Australia for 20 years. Since 2000 she has been an academic investigating psychosocial aspects of infertility and infertility treatment for women and men and the health and development of IVF-conceived children and young adults. She is currently a Senior Research Fellow at the Jean Hailes Research Unit, School of Public Health and Preventive Medicine at Monash University.

Abstract Cross-border reproductive care (CBRC) is becoming increasingly common. Little is known about the motivations and information and support needs of people who cross borders to access surrogacy. This study aimed to explore: how those considering or undertaking extraterritorial surrogacy reach their decision; what other avenues they have considered and tried to have children; their sources of information and support; and perceptions of how others view their decision. Members of two Australian parenting support forums completed an anonymous online survey. Of the 249 respondents, 51% were gay men, 43% heterosexual women and 7% heterosexual men. Most heterosexual respondents had tried to conceive spontaneously and with assisted reproductive technology before considering surrogacy. Most respondents felt supported in their decision to try extraterritorial surrogacy by close family and friends. Surrogacy-related information was mostly sourced online and from other parents through surrogacy. Few sought information from a local general practitioner or IVF clinic and those who did reported IVF clinic staff were significantly ($P < 0.001$) more likely than other groups to communicate negative reactions to their decision to seek surrogacy. The apparent negative attitudes to cross-border surrogacy among health professionals warrants further research into health professionals' knowledge, beliefs and attitudes relating to surrogacy. 

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Introduction

The term 'cross-border reproductive care' (CBRC) is used to describe the practice of couples or individuals crossing national or state borders to access assisted reproductive treatment that is illegal, unaffordable or unavailable in their home jurisdiction (Crockin, 2011). One such treatment is surrogacy. Surrogacy offers heterosexual couples in which the woman is unable to carry a pregnancy, single women who are unable to carry a pregnancy, gay couples and single men the opportunity to have a child. In a surrogacy arrangement a woman agrees to carry a pregnancy for another individual or couple, and surrender the child to the intended parent/s at birth. There are two types of surrogacy: traditional and gestational. In traditional surrogacy the surrogate is inseminated with the intended father's (or a donor's) spermatozoa, either at a fertility clinic or at home, and is the biological mother of the child. Gestational surrogacy requires in-vitro fertilization; embryos created from the oocytes and spermatozoa of the intended parents (or donors) are transferred to the uterus of the surrogate, who is genetically unrelated to the child. Surrogacy is termed commercial or compensated when the surrogate receives financial remuneration and altruistic or uncompensated when she carries the child for no financial gain.

Evidence about the incidence of surrogacy is scant (Hudson et al., 2011) and can only be estimated because many surrogacy arrangements are carried out privately; however, based on the number of known surrogacy births, surrogacy is becoming increasingly common (Armour, 2012; Bhatia et al., 2009; Crawshaw et al., 2012). This may in part be due to the lack of access to adoption pathways, prominence given to families through surrogacy in the media and increasing acceptance in society of single men and gay couples as parents (Crawshaw et al., 2012; Norton et al., 2013).

Due to legal or regulatory restrictions on surrogacy and other forms of third party reproduction in some jurisdictions, people increasingly travel to jurisdictions where they can access these treatments. For some of those who access CBRC, legal restrictions and negative public opinion in the home country about third party reproduction induce feelings of abandonment and discrimination (Raes et al., 2013). The term 'reproductive tourism' is sometimes used to describe travel across borders to access forms of treatment that cannot be accessed in the home country. However, it is argued that this ignores the diverse backgrounds and reproductive needs of people who access CBRC and the complexities of their motives for reproductive travel (Hudson and Culley, 2011). In addition, rather than the carefree experience implied by 'tourism', having to travel for assisted reproductive technology (ART) adds to the financial, social, psychological and logistical challenges inherent in such treatment (Kirkman and Hammarberg, 2014).

In Australia surrogacy laws are state-based and not uniform (Hammarberg et al., 2011; Johnson et al., 2014). However, they share three key characteristics: prohibition on advertising for a surrogate; criminalization of compensated surrogacy; and the unenforceability of surrogacy contracts (which means that the surrogate can change her mind about handing the child to the intended parents after birth or the commissioning parents can refuse to accept a disabled child). These restrictions make domestic surrogacy unattainable for most

people; in 2012 only 19 children were born as a result of altruistic gestational surrogacy in Australia (Macaldowie et al., 2014). As a consequence, nearly all resort to compensated surrogacy in countries without, or with less restrictive, surrogacy-related laws and regulations. In settings where standards of care are not regulated or monitored, intended parents, surrogates and children born as a result of surrogacy may be vulnerable (Everingham et al., 2014; Thorn et al., 2012). To reduce the risks of surrogacy undertaken in poorly regulated environments, Millbank (2014) suggests that laws prohibiting compensated surrogacy in Australia should be reconsidered.

Most people want and expect to have children (Fisher et al., 2010; Holton et al., 2011; Lampic et al., 2006; Langdridge et al., 2005; Peterson et al., 2012) and the desire for parenthood amongst the involuntarily childless remains strong even after years of unsuccessful attempts to conceive (Johansson and Berg, 2005; Peddie et al., 2005). Evidence about gay men's wish for parenthood is emerging (Greenfeld and Seli, 2011; Norton et al., 2013). Motives for wanting children include enhancing happiness and well-being, the need to give and receive love and to experience the enjoyment of children (Colpin et al., 1998; Dyer et al., 2008; Langdridge et al., 2005). The use of surrogacy to have children involves complex legal, psychological, social and financial challenges and most people considering or undertaking surrogacy only do so after exhausting other avenues to have children (MacCallum et al., 2003).

While the ethical, medical and legal aspects of surrogacy have been well documented (Armour, 2012; Bhatia et al., 2009; Crawshaw et al., 2012; Crockin, 2011; Gürtin and Inhorn, 2011), little is known about the motivations, information and support needs of those considering or undertaking surrogacy.

In July 2013, the not-for-profit association Surrogacy Australia in partnership with Monash University conducted an anonymous online survey of members of *Surrogacy Australia* and *Gay Dads Australia*. Findings relating to participants' experiences of ART, the types of surrogacy they considered or used, the impact of criminalization laws on behaviour (Everingham et al., 2014), and the outcomes of extraterritorial surrogacy (Stafford-Bell et al., 2014) have previously been reported. This paper reports the family-building options participants had considered before deciding to use extraterritorial surrogacy, which methods to conceive they had tried before contemplating surrogacy, which sources of information and support they used during the process of deciding to use surrogacy, and the reactions to this decision from people they confided in.

Materials and methods

The study was approved by Monash University Human Research Ethics Committee on 18 June 2013 (reference no. CF13/740 - 2013000328).

Materials

The online survey comprised 90 study-specific fixed-choice questions covering sociodemographic characteristics, the

background to and reasons for considering or undertaking surrogacy, information and support needs relating to surrogacy, and the experience and outcome of surrogacy among those who had undertaken it. It was pilot tested with intended and existing parents through surrogacy.

Study population and recruitment

An invitation with a link to the survey was e-mailed to all members of Surrogacy Australia and Gay Dads Australia. Australian residents considering surrogacy or in a current or past uncompensated or compensated surrogacy agreement were eligible to participate.

Of 1135 potential participants, 312 commenced the survey – a 27% response rate. Of these, 24 were excluded because they were not Australian residents and/or not intended/current/considering parents through surrogacy. Of the 288 remaining eligible respondents 259 completed the survey. Findings from the 249 who stated that they were considering or in a current or past international compensated surrogacy arrangement are reported.

Statistical analysis

Data were analysed by Q Analysis Software using descriptive statistics (Q Analysis Software for Market Research, Australia). Univariate comparisons were made using Student’s *t*-test and chi-squared statistics. *P*-values <0.05 were considered significant.

Results

Participant characteristics

Of the 249 participants, 137 were considering or currently in the process of making arrangements for overseas surrogacy

and 112 had had at least one attempt at surrogacy overseas. The average age of participants was 40 years, approximately 10 years older than the average age of women who give birth in Australia (Li et al., 2013); 43% were heterosexual women, 51% were gay men and 7% heterosexual men; and 90% were either married or in a *de facto* relationship. They were socioeconomically advantaged; 76% had a household income of AUD \$104,000 (approximately US \$97,000) or more. Average full-time earnings in Australia was AUD \$69,992 in 2012 (Living in Australia, 2014).

Parenting options considered

Most participants had considered one or several other parenting options before considering surrogacy (Figure 1). These varied depending on the participants’ sexuality and whether they were single or in a couple relationship. As would be expected, most heterosexual respondents had considered natural conception. Homosexual couples were most likely to have considered adoption while the most commonly considered option for single individuals was natural conception. The small number of gay men who reported that they had considered natural conception were possibly referring to co-parenting arrangements with a female friend.

Methods tried before surrogacy

Methods used to try to conceive among the 123 heterosexual respondents are shown in Table 1. Two-thirds had attempted ART treatment in Australia before considering surrogacy overseas. It is unclear why some (5%) had attempted ART but not natural conception and others (17%) had tried neither natural conception nor ART, but these responses may have been given because one or the other partner was known to be infertile or sterile.

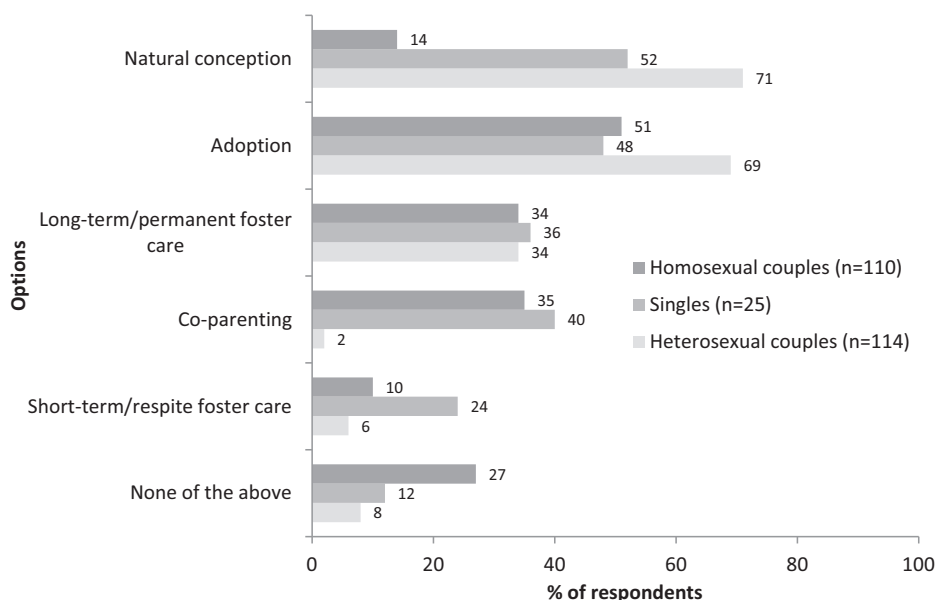


Figure 1 Parenting options considered before surrogacy.

Table 1 Methods attempted to achieve pregnancy (heterosexual respondents $n = 123$).

Methods used	%
Tried to conceive naturally then tried IVF	61
Tried to conceive naturally only	17
Did not try naturally, but tried IVF	5
Did not try naturally or IVF	17

Reasons for surrogacy

Heterosexual respondents were asked why they considered surrogacy. Close to a one-third (31%) gave more than one reason. The most common reason for considering surrogacy was that the woman had had a hysterectomy or had a congenitally malformed or absent uterus (Table 2).

Repeated failed embryo transfer, other adverse reproductive outcomes and medical conditions were other common reasons for considering surrogacy.

Sources of information

Respondents were asked which sources of information they used before deciding to use compensated surrogacy overseas (Figure 2). On average five different (mostly online) sources were relied upon. Overseas surrogacy agency websites were the most common source of information. Few sought information from a local general practitioner (GP) or IVF clinic

Table 2 Stated reasons for considering surrogacy (heterosexual respondents $n = 123$).

Reason (multiple responses allowed)	%
No/damaged/misshapen uterus/hysterectomy	40
Repeated failed IVF attempts	36
Medical condition	29
Repeated miscarriage/neonatal death	20
Medical advice/high risk prior birth	8
Breast cancer recurrence/chemotherapy	2
Ovarian tumour/cervical cancer	2
Unexplained condition preventing implantation	2
Single male	2

staff about overseas surrogacy options. Gay intended parents were more likely than heterosexual couples to have consulted other parents through surrogacy in their information-seeking (68% versus 54%, $P < 0.05$). Surrogacy chat forums and Australian-based alternative parenting website resources were also commonly consulted.

People confided in about pursuing surrogacy

Figure 3 shows who respondents confided in about their decision to try overseas surrogacy. Almost all talked to close friends and close family. While heterosexual couples were significantly less likely than other intended parents to confide in acquaintances (53% versus 69%, $P < 0.05$) or other relatives (57% versus 70%, $P < 0.05$) they were more likely to

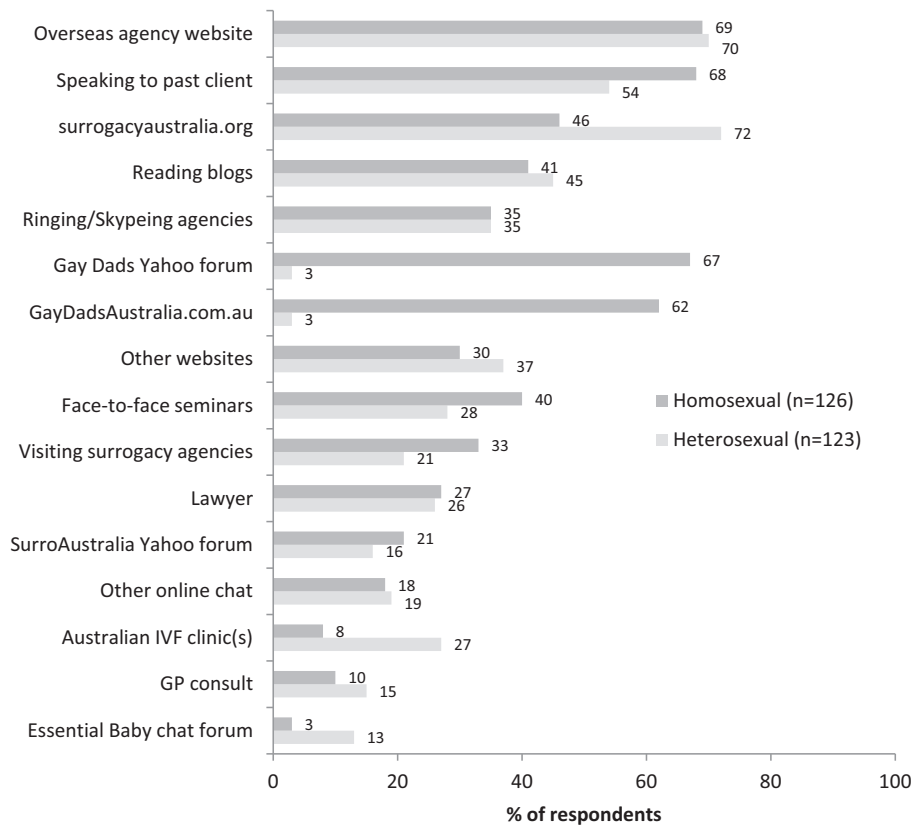


Figure 2 Sources of surrogacy-related information.

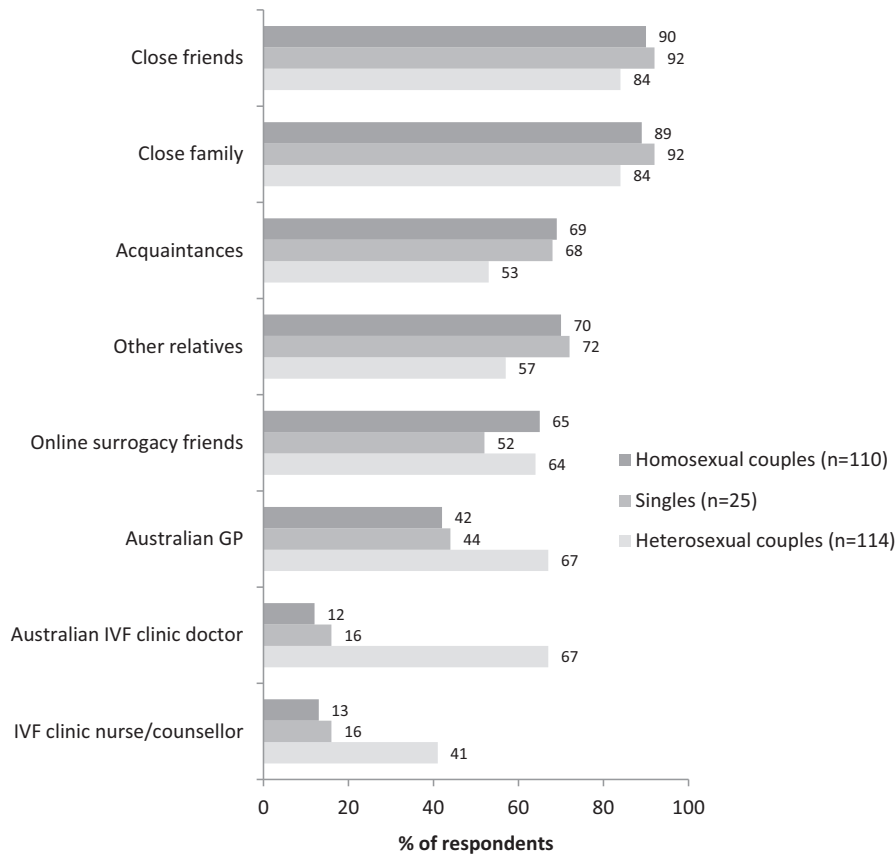


Figure 3 People participants confided in about pursuing surrogacy.

confide in their GP (67% versus 42%, $P < 0.05$), a local IVF specialist (67% versus 14%, $P < 0.05$) and IVF nurse (41% versus 14%, $P < 0.05$).

Reactions from those confided in

The perceived reactions from those who were told about the planned or actual use of compensated overseas surrogacy are

shown in Figure 4. Among those who confided in others who had been on the overseas surrogacy journey, almost all received a positive reaction to their disclosure about using overseas surrogacy (94%). Close friends and close family were also predominantly supportive. Heterosexual and homosexual couples reported equally strong support from these groups. Single intended parents were significantly less likely than couples to report positive reactions from close family (61% versus 82%, $P = 0.01$) and other relatives (44% versus 80%,

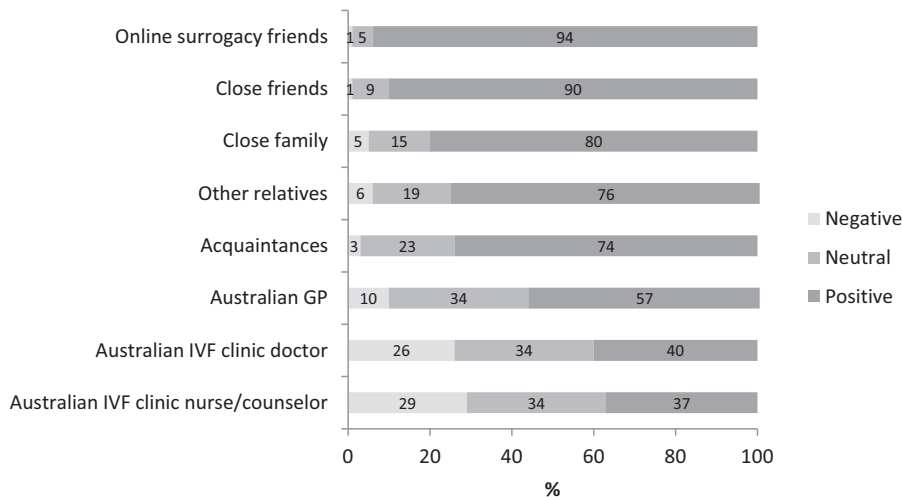


Figure 4 Perceived reactions from those participants confided in about pursuing surrogacy.

$P = 0.01$). A little over half of those who confided in their GP that they were considering or undertaking overseas surrogacy reported a positive reaction, with no difference between gay and heterosexual intended parents. However, local IVF specialists and nurses were significantly more likely to communicate a negative reaction (26% and 29% respectively) to intended parents' decision to seek surrogacy overseas than other groups.

Importance of support from family and friends

Participants were asked how important the support of family and friends was when deciding to use surrogacy overseas. While 70% rated it as important (responded 'Very important', 'Quite important', or 'Of some importance'), for 30% of participants the support of their family and friends was of little or no importance to their decision to pursue surrogacy. Differences in the perceived importance of support of family and friends were apparent between household income groups. Those on the lowest household income (<AUD \$104,000) were significantly more likely than those on the highest income (>AUD \$260,000) to rate the support of family and friends as 'Very important' in their decision to pursue surrogacy (43% versus 18%, $P < 0.05$). There were no statistically significant differences between singles, gay or heterosexual couples in the proportions who rated support from friends and family as 'Very important' to their decision to use surrogacy.

Discussion

This is the first report of the motivations and information and support needs among Australians who consider or undertake compensated surrogacy overseas. The number of Australians contemplating and undertaking surrogacy is increasing, particularly compensated extraterritorial surrogacy (Johnson et al., 2014). It is therefore important that health care professionals are aware of their needs and able to provide objective and comprehensive information about all aspects of surrogacy.

It is not possible to know if participants in this study were representative of all those seeking surrogacy. However, the fact that half were heterosexual, just over half male and one in ten single, suggest that a range of people completed the survey. As this was a cross-sectional study using an anonymous online survey, the depth of the data is limited and this is acknowledged as a limitation. It is also possible that people who are active on internet forums are different to those who are not in their support needs and information seeking behaviour. The data may therefore not be generalizable to people who are not part of online surrogacy support networks. Nevertheless, the findings add to the limited existing evidence about people who pursue extraterritorial surrogacy.

While gay couples need surrogacy for biological reasons, for most heterosexual couples surrogacy was a last resort option after having tried unsuccessfully to conceive naturally and with ART. Repeated failed ART, other adverse reproductive outcomes and medical conditions, including the

absence of a (normal) uterus, were common reasons for considering surrogacy. This indicates that the decision to try surrogacy is driven by necessity: for gay couples it is the only way to have biologically related children within a gay parent nuclear family and for heterosexual couples all other avenues to have biologically related children have been exhausted. The regulatory restrictions imposed on surrogacy in Australia drive people to travel to countries where compensated surrogacy is permitted. The ethical, legal, regulatory and financial complexities inherent in such travels add to the significant burden for those who need surrogacy (Johnson et al., 2014; Van Hoof and Pennings, 2011; Whittaker, 2010).

Participants sought information from multiple sources. Not unexpectedly, most had used surrogacy agency websites to source information. The independence of information presented on such websites may be questionable considering the commercial interests of surrogacy agencies. Many had also sought information from people who had been through surrogacy. Practical advice from someone who has been through the complex process of extraterritorial surrogacy and is willing to share their experiences may help prepare intending parents for potential difficulties. The ability to access factual and objective information about all aspects of surrogacy from health professionals in the home country would help those considering surrogacy to make informed decisions. The finding that less than half of the respondents had sought information from or discussed their intention to seek surrogacy overseas with local IVF clinic staff and that those who did often perceived negative reactions is concerning. It is possible that professional guidelines relating to ART practice which state that 'Clinics must not undertake or facilitate commercial surrogacy arrangements' deter health professionals from engaging with people who seek their advice about compensated surrogacy (NHMRC, 2007). However, health professionals have a duty of care to people who seek their advice. Education and research into health professionals' beliefs about their legal obligations, duty of care to those who want to discuss surrogacy options and knowledge and attitudes relating to surrogacy is needed.

Surrogacy is financially, socially, legally and psychologically challenging. Overall respondents had high household incomes and were supported in their decision to seek surrogacy, at least from people close to them. The greater importance placed on support from family and friends amongst those on lower household incomes may be related to their need for financial and/or emotional support to undertake surrogacy.

The present authors have previously reported that, due to the current restrictive regulatory environment, most Australian intended parents via surrogacy consider or use overseas compensated rather than local surrogacy arrangements in spite of the risk inherent in breaking laws banning compensated surrogacy (Everingham et al., 2014). They have also shown that rates of multiple birth and prematurity are significantly higher in extraterritorial surrogacy arrangements than in ART procedures undertaken in Australia (Stafford-Bell et al., 2014). Taken together with the findings of this part of the study, which indicate that only those with substantial financial assets can access surrogacy when it has to be undertaken in another country and that laws and professional guidelines appear to limit health professionals' capacity to support those who seek overseas surrogacy, we conclude that the current regulatory environment relating

to surrogacy in Australia imposes unnecessary restrictions and risks on people who need surrogacy to build a family, and their children. We propose that pragmatic approaches to improve access to domestic surrogacy are needed and concur with Millbank (2014), who argues for the removal of the ban on compensated surrogacy on the basis that 'payment alone cannot be used to differentiate "good" surrogacy arrangements from "bad" ones'. With strict regulation relating to compensation, comprehensive counselling, legal agreements between parties, and responsible clinical ART practice, the safety and well-being of all parties would be better protected in domestic than extraterritorial surrogacy. Furthermore, the right of children born from third party reproduction to know their origins is increasingly being recognized (Tobin, 2012). In contrast to many destinations that Australians use for surrogacy (such as India, Thailand and the USA), it is mandatory in Australia to record identifying information about all parties involved in third party reproduction, including altruistic surrogacy arrangement (NHMRC, 2007). Consequently, providing their parents disclose it to them, children born as a result of surrogacy in Australia can access information about all those involved in their conception and birth when they reach the age of majority (age 18 in Australia) and this is likely to contribute to positive adjustment and emotional well-being among this group.

References

- Armour, K.L., 2012. An overview of surrogacy around the world. *Nurs. Womens Health* 16, 231-236.
- Bhatia, K., Martindale, E.A., Rustamov, O., Nysenbaum, A.M., 2009. Surrogate pregnancy: an essential guide for clinicians. *The Obstetrician and Gynaecologist* 11, 49-54.
- Colpin, H., De Munter, A., Vandemeulebroecke, L., 1998. Parenthood motives in IVF mothers. *J. Psychosom. Obstet. Gynecol.* 19, 19-27.
- Crawshaw, M., Blyth, E., van den Akker, O., 2012. The changing profile of surrogacy in the UK—Implications for national and international policy and practice. *J. Soc. Welf. Family Law* 34, 267-277.
- Crockin, S.L., 2011. Legal perspectives on cross-border reproductive care. *Reprod. Biomed. Online* 23, 811-813.
- Dyer, S., Mokoena, N., Maritz, J., van der Spuy, Z., 2008. Motives for parenthood among couples attending a level 3 infertility clinic in the public health sector in South Africa. *Hum. Reprod.* 23, 353-357.
- Everingham, S., Stafford-Bell, M., Hammarberg, K., 2014. Australians' use of surrogacy. *Med. J. Aust.* 201, 270-273.
- Fisher, J., Baker, H., Hammarberg, K., 2010. Long-term health, well-being, life satisfaction, and attitudes towards parenthood in men diagnosed as infertile: challenges to gender stereotypes and implications for practice. *Fertil. Steril.* 94, 574-580.
- Gay Dads Australia. <www.gaydadsaustralia.com.au> (accessed 06.15.15).
- Greenfeld, D., Seli, E., 2011. Gay men choosing parenthood through assisted reproduction: medical and psychosocial considerations. *Fertil. Steril.* 95, 225-229.
- Gürtin, Z.B., Inhorn, M.C., 2011. Introduction: travelling for conception and the global assisted reproduction market. *Reprod. Biomed. Online* 23, 535-537.
- Hammarberg, K., Johnson, L., Petrillo, T., 2011. Gamete and embryo donation and surrogacy in Australia: the social context and regulatory framework. *Int. J. Fertil. Steril.* 4, 178-184.
- Holton, S., Fisher, J., Rowe, H., 2011. To have or not to have? Australian women's childbearing desires, expectations and outcomes. *J. Popul. Res.* 28, 353-379.
- Hudson, N., Culley, L., 2011. Assisted reproductive travel: UK patient trajectories. *Reprod. Biomed. Online* 23, 573-581.
- Hudson, N., Culley, L., Blyth, E., Norton, W., Rapport, F., Pacey, A., 2011. Cross-border reproductive care: a review of the literature. *Reprod. Biomed. Online* 22, 673-685.
- Johansson, M., Berg, M., 2005. Women's experiences of childlessness 2 years after the end of in vitro fertilization treatment. *Scand. J. Caring Sci.* 19, 58-63.
- Johnson, L., Blyth, E., Hammarberg, K., 2014. Barriers for domestic surrogacy and challenges of transnational surrogacy in the context of Australians' undertaking surrogacy in India. *J. Law Med.* 22, 136-154.
- Kirkman, M., Hammarberg, K., 2014. Assisted reproductive technology. In: Cockerham, R., Quah, S. (Eds.), *The Wiley-Blackwell Encyclopedia of Health, Illness, Behavior, and Society*. Wiley-Blackwell.
- Lampic, C., Skoog-Svanberg, A., Karlstrom, P., Tyden, T., 2006. Fertility awareness, intentions concerning childbearing, and attitudes towards parenthood among female and male academics. *Hum. Reprod.* 21, 558-564.
- Langdrige, D., Sheeran, P., Connolly, K., 2005. Understanding the reasons for parenthood. *J. Reprod. Infant Psychol.* 23, 121-133.
- Li, Z., Zeki, R., Hilder, L., Sullivan, E., 2013. Australia's Mothers and Babies 2011. Perinatal statistics series no. 28. Cat. no. PER 59. AIHW, Canberra.
- Living in Australia, 2014. <<http://www.livingin-australia.com/salaries-australia/>> (accessed 06.15.15).
- Macaldowie, A., Wang, Y.A., Chugthai, A.A., Chambers, G., 2014. Assisted Reproductive Technology in Australia and New Zealand 2012. National Perinatal Epidemiology and Statistics Unit, the University of New South Wales, Sydney.
- MacCallum, F., Lycett, E., Murray, C., Jadv, V., Golombok, S., 2003. Surrogacy: the experience of commissioning couples. *Hum. Reprod.* 18, 1334-1342.
- Millbank, J., 2014. Rethinking 'commercial' surrogacy in Australia. *J. Bioeth. Inq.* doi:10.1007/s11673-014-9557-9.
- NHMRC, 2007. Ethical Guidelines on the Use of Assisted Reproductive Technology in Clinical Practice and Research. Australian Government, Canberra.
- Norton, W., Hudson, N., Culley, L., 2013. Gay men seeking surrogacy to achieve parenthood. *Reprod. Biomed. Online* 27, 271-279.
- Peddie, V.L., van Teijlingen, E., Bhattacharya, S., 2005. A qualitative study of women's decision-making at the end of IVF treatment. *Hum. Reprod.* 20, 1944-1951.
- Peterson, B.D., Pirritano, M., Tucker, L., Lampic, C., 2012. Fertility awareness and parenting attitudes among American male and female undergraduate university students. *Hum. Reprod.* 27, 1375-1382.
- Q Analysis Software for Market Research. <www.q-researchsoftware.com/> (accessed 06.15.15).
- Raes, I., Ravelingien, A., Pennings, G., 2013. The right of the donor to information about children conceived from his or her gametes. *Hum. Reprod.* 28, 560-565.
- Stafford-Bell, M., Everingham, S., Hammarberg, K., 2014. Outcomes of surrogacy undertaken by Australians overseas. *Med. J. Aust.* 201, 1-4.
- Surrogacy Australia. <www.surrogacyaustralia.org> (accessed 06.15.15).
- Thorn, P., Wischmann, T., Blyth, E., 2012. Cross-border reproductive services—suggestions for ethically based minimum standards of care in Europe. *J. Psychosom. Obstet. Gynecol.* 33, 1-6.
- Tobin, J., 2012. Donor-conceived individuals and access to information about their genetic origins: the relevance and role of rights. *J. Law Med.* 19, 742-757.

- Van Hoof, W., Pennings, G., 2011. Extraterritoriality for cross-border reproductive care: should states act against citizens travelling abroad for illegal infertility treatment? *Reprod. Biomed. Online* 23, 546–554.
- Whittaker, A., 2010. Challenges of medical travel to global regulation: a case study of reproductive travel in Asia. *Glob. Soc. Policy* 10, 396–415.

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