

# Barriers to reproductive treatments in Australia

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*This article is part of a series of articles on infertility.*

## Background

Most couples in Australia want to have children but some might not attain their reproductive goals, experiencing involuntary childlessness or not reaching their desired family size. There is increased focus on helping couples achieve their reproductive goals. Identifying existing barriers, such as those related to social and societal factors, access to treatment and treatment success, is crucial to optimising outcomes.

## Objective

This article discusses existing barriers to reproduction to help general practitioners (GPs) raise the topic of future fertility with patients, care for those presenting with fertility concerns and support those undergoing fertility treatment.

## Discussion

Recognition of the impact of barriers such as age to achieving reproductive goals remains the highest priority for GPs. This will help them to broach this topic with patients, carry out a timely evaluation or provide referral, as well as discuss opportunities such as elective egg freezing. Other barriers can be mitigated by educating patients, informing them about available resources and supporting those undergoing fertility treatment as part of a multidisciplinary reproductive team.

**THE DECLINE IN FERTILITY IN AUSTRALIA AND BEYOND** is seen by some as a crisis, sparking public debate about the social and economic consequences. The prevailing assumption that this is a result of deliberate decision making to avoid or delay having children is challenged by the data,<sup>1-3</sup> and there is now greater focus at a policy level on helping couples achieve their desired family size and overcome barriers to reproduction.<sup>4</sup> Despite most women and men in high-income countries such as Australia wanting to have children, some do not achieve their reproductive goals and approximately one in four women end their reproductive years childless, with many more not achieving their desired family size.<sup>4-6</sup> While many social and other factors contribute to people not attempting to conceive, including financial pressures and lack of suitable partner, as many as one in seven couples struggle to conceive and might be categorised as infertile. The increased age of both women and men at the time of trying to conceive is one of the main causes of infertility. For many people with infertility issues, fertility treatments such as in vitro fertilisation (IVF) might present their most realistic chance of having a baby or realising their desired family size.

While there is a presumption that residing in a high-income country such as Australia enables men and women to manage their fertility optimally and access infertility diagnosis and treatments, this might not be the case for many.<sup>7,8</sup> Exploring the issues and barriers to reproductive treatments and their likelihood of success is crucial to mitigating the problem and optimising outcomes. Broadly, these factors fall into two categories: barriers of access to fertility treatment and barriers to treatment success (Table 1). A range of approaches are therefore required to address the barriers to forming a family.

## Barriers related to accessing fertility treatment

### Lack of knowledge of fertility decline and success rates of assisted reproductive technologies

There is a well-described knowledge gap for both men and women regarding biological fertility decline and the implications of this for spontaneous conception. Many underestimate the influence of

increasing female and male age on the chance of conceiving and having a healthy baby<sup>9,10</sup> and there is a pervasive belief that assisted reproductive technology (ART) can overcome age-related infertility.<sup>8</sup> Such misconceptions directly result in a missed opportunity to have biological children for many people.<sup>11</sup> For example, only one-third of secondary school students understand that ART does not cure infertility, and some adults in their mid-30s delay conception because they believe ART is a reliable alternative if conception is difficult.<sup>9</sup> Most women and men who participated in the Australian Institute of Family Studies' Fertility Decision-Making Project in 2004 believed that they were likely or very likely to succeed in having children through IVF, and those in their late 30s were as likely as those in their 20s or early 30s to be optimistic about conceiving with IVF.<sup>5</sup>

Healthcare providers have an important role to play in educating people about fertility management options and available services. General practitioners (GPs) have a good knowledge of fertility; however, some underestimate the effect of age (eg they believe that the onset of female fertility decline is at 38–40 years of age, rather than 35–37 years) and overestimate patient awareness of their fertility decline.<sup>12</sup> While common barriers to initiating family planning discussions with patients include lack of time, resources and fear of 'causing stress', there might also be a concern about perpetuating gender stereotypes.<sup>13</sup>

GPs could take the opportunity during routine healthcare visits to direct patients to evidence-based resources (eg Your Fertility, [www.yourfertility.org.au](http://www.yourfertility.org.au)).<sup>14</sup> Accurate and comprehensive information about fertility should also be provided via public health campaigns and school-based education. Interventions such as these would assist both women and men to better understand factors that adversely affect their reproductive potential and therefore manage their fertility aspirations more effectively.

### Financial

In Australia, Medicare funds a proportion of the cost of a total IVF cycle but there are often still significant out-of-pocket costs,

even in 'low-cost' clinics. Truly 'public' care is currently available for only a limited number of those who need it. Financial expense is often cited as one of the major barriers to commencing and continuing treatment.<sup>5</sup> While many people appear to view these technologies as affordable and accessible,<sup>5</sup> there are undoubtedly inequities relating to access, based on socioeconomic status, health literacy and geographical location.

It is important also to recognise that many patients requiring fertility assistance do not need IVF and might be offered options such as general and reproductive health optimisation measures (eg weight loss, smoking cessation etc), ovulation induction, intrauterine insemination or laparoscopy to treat endometriosis and optimise pelvic factors, depending on a patient's clinical factors and wishes. Some of these options have negligible out-of-pocket costs and, in some places, are offered through the public hospital systems, although waiting times might be longer.

### Psychological barriers

Despite the negative impact of infertility on their lives, a significant number of those struggling to conceive do not consult a physician. There is evidence that many women decide against consultation because of a fear of being labelled infertile, concerns about lack of family and/or social support and worries about

treatment safety and cost.<sup>15</sup> The stigma related to infertility is thankfully reducing and men increasingly acknowledge their role in this condition.<sup>16</sup>

It is not surprising that patients perceive infertility treatment as physically, psychologically and financially challenging. With easily accessible information via thousands of websites that detail the rigours of treatment protocols, the stories and complaints of friends and family, couples experiencing infertility might have a negative impression of the treatment process before ever speaking to a physician.<sup>17</sup> However, delay in seeking help from a healthcare professional, especially for women in their mid-30s, increases the risk of remaining childless.

In order to help individuals and couples with infertility concerns reduce the psychological burden associated with infertility and its treatment, it is important to address reproductive needs proactively, raising fertility awareness in primary care and providing support throughout the treatment journey.

### Obesity

Obesity is a rapidly growing global health problem, and over 50% of women who enter pregnancy are classified as overweight or obese, resulting in short- and long-term effects on maternal and child health outcomes.<sup>18</sup> Obesity is associated with reduced reproductive outcomes regardless of the mode of conception and is

**Table 1. Infertility: barriers to access and success of treatment, and suggested mitigation strategies**

Barriers to access	Mitigation strategies
Lack of knowledge regarding infertility	Education, public health measures
Financial/cost	Improved access, awareness of other strategies
Psychological stress	Education, improve understanding of the issues
Barriers to success	
Age	Better information and increased education and awareness of the deleterious effect of older age on fertility
Donor gametes	Creative ways to increase oocyte supply
Treatment discontinuation	Improved support, communication among team

associated with adverse maternal and fetal outcomes.<sup>19</sup> Obesity also presents a barrier for accessing assisted conception. The Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) suggest that a body mass index exceeding 35 kg/m<sup>2</sup> should be a contraindication to assisted fertility treatment, such as IVF.<sup>20</sup> While discretion for accessing treatment is ultimately left to the treating doctor, this policy does create a significant barrier for women who are clinically categorised as obese accessing ART.<sup>21</sup>

Doctors should encourage women who are clinically characterised as obese to initially attempt weight loss prior to undertaking ART treatment. Ideally, in the primary care setting, prevention of this condition is emphasised. However, a universal ban on women who are severely obese accessing ART is inappropriate, and ignores other important considerations such as metabolic health, comorbidities, maternal age, underlying cause of infertility and past success with weight loss attempts.<sup>21</sup> Patients need to be informed of the risks to them and potential offspring, with intensive efforts to improve metabolic fitness before assisted medical treatment for infertility. This needs to be an integral part of their active management plan, rather than a ban on medical treatment.<sup>22</sup>

### Barriers related to fertility treatment success

#### Age

The purpose of ART is to help patients with infertility issues to have a family and to do this safely, maximising the rate of singleton healthy live births. IVF success rates have improved significantly over the past 10 years. For example, in women aged 35–39 years, the live birth rate per cycle started increased from 19% to 23%, representing a 20% relative increase in success rates. In those aged 40–44 years, the live birth rates have increased by a similar proportion to 10%. However, despite these gains, the absolute success rates remain modest, and for older women they are very low. In women aged more than 44 years, the live birth per embryo transfer was 1.7%.<sup>23</sup>

Proactively addressing this issue with more support for women to have children earlier, expedited referrals for investigation and treatment, and informing young women regarding egg freezing opportunities will help to tackle this problem.

#### Donor gametes

Due to the poor success rates associated with autologous eggs at the upper extreme of reproductive age, donor oocytes are increasingly sought for conception. In Australia, oocytes (in fact, all gametes) can only be donated altruistically, with compensation limited to direct expenses incurred by the donor party. This makes it very difficult to access donor eggs, especially for those who cannot find or prefer not to seek out a known donor. Some women and couples choose to go overseas for treatment, where challenges related to treatment safety, effectiveness and future offspring contact abound.

An innovative proposal to address donor egg scarcity is to reimburse women who electively freeze eggs but do not ultimately use them for the costs they incurred if they want to donate their eggs.<sup>24</sup> This is not prohibited by Australian legislation and would potentially improve the cost-effectiveness of the egg freezing process while providing a source of much needed donor oocytes. Perceived regulatory barriers have precluded this being offered to date.

One in seven ART treatment cycles are in single females or female–female couples.<sup>25</sup> The increase in demand for donor sperm, which often outstrips supply, has meant reduced donor options and longer waiting times. Increasing supply via initiatives such as public sperm banks would be advantageous.

#### Treatment dropout

With approximately one in four embryos transferred resulting in a live birth, most patients will need more than one cycle of IVF to achieve their parenthood goals. Although many patients start treatment with a strong motivation to achieve pregnancy, only half of those who do not conceive will go on to complete three cycles.<sup>26,27</sup> Among women receiving

treatment, psychological stress is reported to be the most frequent reason for early discontinuation,<sup>28</sup> the causes of which include negative effects of treatment on a couple's relationship and injection-associated anxiety.<sup>17</sup> Other contributing factors include financial burden and the perception of a lack of staff expertise.<sup>29</sup>

An important factor for patients continuing treatment, thereby directly impacting their chance of conceiving, is communication with the healthcare team throughout diagnosis and treatment.<sup>30</sup> Effective communication between the patient, non-GP specialist and the GP improves the patient experience.<sup>31</sup>

### Addressing barriers at the societal level

- Increased education in
  - primary and secondary schools, such as the Fertility Matters program ([www.fertilitymatters.org.au/home](http://www.fertilitymatters.org.au/home))
  - universities, colleges and workplace forums to educate young adults.
- Better workplace and societal structures to facilitate having children earlier, including improved parental leave provisions.
- More accessible pre-pregnancy planning advice and fertility consultations, which might reduce the requirement for subsequently more invasive (and less successful) ART.
- More access to affordable fertility treatment.
- Reduce stigma by normalising fertility and reproduction issues with men and women, via workplace seminars, TV programs and media outlets.

### Conclusion

Despite most Australian people wanting to have children, some might not achieve their reproductive goals. Barriers to accessing reproductive care include lack of fertility awareness and overestimating the success of IVF, costs of treatment and psychological stress. Successful outcomes from fertility treatment are significantly affected by advanced age (especially of women), treatment dropout and inadequate donor gamete access.

## Increased education, societal supports and access to treatment will go a long way to addressing the challenges in this area.

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