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# Making decisions about fertility

## Three facts GPs need to communicate to women

### Background

Average annual fertility rates in industrialised countries have been below two children per woman for the past 3 decades. The reasons behind women's childbearing behaviour are complex. However, a lack of awareness regarding the consequences of delayed childbearing and the inability of reproductive technologies to overcome the 'biological clock' may be contributory factors.

### Objective

A narrative review guided by the research question: What do women need to know about the consequences of delayed childbearing in order to make informed decisions about their fertility?

### Discussion

There are three facts that women need to know in order to make informed decisions around their fertility: Some women want to have more children than they are able to have because they postpone childbearing; there can be medical consequences to delaying childbearing and; some women's ideas about their fertility don't match the 'the scientific facts'. General practitioners are well placed to play a strategic role in the provision of timely, relevant information to help women make informed decisions about their fertility. Further research is needed to identify the most appropriate ways for GPs to communicate this information.

### Keywords

fertility; health education; ethics; general practice

security; the challenges women face in finding and securing care arrangements (whether in heterosexual, gay/lesbian or single parent families); and the effect of experiences of first pregnancy, physical infertility, and poor pregnancy outcomes on future fertility. In practical terms, postponement increases the age of first motherhood, reducing the remaining time in which women can have a child and increasing their likelihood of ending up childless, or with fewer children than they wanted and planned to have. The recent trend in delayed childbearing, and consequent overall reduced fertility, has led to what is often called an 'epidemic of pregnancy in middle age'.<sup>3</sup> This has been observed among women in many parts of the developed world, including the United States,<sup>4</sup> Canada,<sup>5</sup> Europe<sup>6</sup> and Australia.<sup>7</sup> Of significant concern is that women may be delaying their first pregnancy without knowing or understanding the consequences of this decision on their future fertility.

This article, focusing on the Australian setting, argues that there are three critical facts that women need to know in order to make informed decisions around their fertility.

- Some women want to have more children than they are able to have because they postpone childbearing
- There can be medical consequences to delaying childbearing
- Some women's ideas about their fertility don't match the 'scientific facts'.

In presenting these facts, we highlight gaps in the research that require further investigation. Currently, much of the evidence about the 'chosen' nature of women's fertility comes from population based studies. Little is known about how women conceptualise their fertility journey, what they understand about the opportunities

Average annual fertility rates in almost all industrialised countries have been below two children per woman for the past 3 decades.<sup>1</sup> Such sustained low fertility can be associated with complex social, economic and population management issues as the population ages. More importantly, the rates may be less an expression of 'what women want when it comes to motherhood and more of a reflection of what women are getting'.<sup>2</sup>

Low fertility rates can result from women progressively postponing the first time they give birth. Such postponement may be due to aspirations for education, career and financial

and limits of their fertility, and how they react emotionally and practically to final fertility outcomes that differ from the maternity desires and intentions they had at the start of their childbearing years.

General practitioners are well placed to play a strategic role in the provision of this information (Table 1). Incontrovertibly, women's decision to delay childbearing is often influenced by wider sociopolitical contexts and debates around patient autonomy and reproductive rights. It is important that GPs acknowledge these contexts when aiming to communicate the facts to women patients. Some GPs may feel that this role is not within their ambit. However, we argue that it is necessary for women to have all the available information in order to make informed decisions about their fertility and that GPs are in an ideal position to provide this information.

**Fact 1: Some women want to have more children than they are able to have because they postpone childbearing**

Low fertility rates are a consequence of some women having no children and others having fewer children. Research suggests that many women have clear aspirations by their late teens or early 20s with regard to future parenthood.<sup>2,8</sup> The Australian Longitudinal Study on Women's Health found that over 85% of young women aged 18–23 years aspired to be married, have one child and be in paid employment by the age of 35 years.<sup>9</sup> This finding confirms earlier work<sup>10</sup> which found that only 6–8% of Australian women aspire to childlessness. There is, however, a significant gap between the number of children women tell researchers they want, and the number they achieve. This gap between fertility aspirations and fertility attainment has led to predictions that in Australia, up to a quarter of women will end their fertile years childless.<sup>11</sup> Such realities suggest that 'choice' and infertility may not be the only factors affecting women's reproductive outcomes. Importantly, the sustained low fertility rates in industrialised countries may be partly explained by circumstances that constrain women's freedom to mother at all, or to have as many children as they plan and desire.<sup>2</sup>

The factors behind contemporary women's childbearing behaviour are multifactorial and

**Table 1. The strategic role of GPs in providing fertility information**

Each year, Australian GPs consult with 86% of the population<sup>38</sup> and 3.6 of every 100 consultations between GPs and patients involves contraception management<sup>39</sup>

GPs are often the first point-of-contact for an infertile couple and play an important role in referral, ordering further tests, and ensuring individuals receive appropriate and timely fertility care<sup>40</sup>

Building on their existing relationship with patients, GPs have an opportunity during a wide range of consultations (eg. during routine Pap tests, health check-ups, and contraceptive consultations) to gain an understanding of their patients' short and long term reproductive goals

By engaging in positive family planning and taking a patient centred approach, GPs can offer relevant 'fertility facts'<sup>41</sup> to patients as part of their responsibility to assist the patient to make informed decisions

Further research is needed to identify the most appropriate way for GPs to deliver these fertility facts without sounding condescending or patronising

complex.<sup>12</sup> Contributing factors include effective contraception, liberalised abortion laws, women's increased involvement and commitment to the workforce and a desire to achieve both financial security and a suitable partner before parenting. The result is that increasing numbers of women in Western countries are delaying their first pregnancy until around age 30 years.<sup>7,13</sup> In 1998, just under a third of Australian women aged 30 years or over had their first birth; 2011 data from the Australian Institute of Health and Welfare<sup>14</sup> indicates this proportion has increased to over 54%, with 23% of all first-child births occurring in women aged 35 years and over.

**Fact 2: There can be medical consequences to delaying childbearing**

Female fertility declines with increasing age. Age related fertility problems increase after 35 years and significantly after 40 years.<sup>3</sup> Pregnancies in older women are more likely to result in adverse outcomes such as stillbirth, miscarriage and ectopic pregnancy<sup>15</sup> as well as multiple births and congenital malformations.<sup>16</sup> Pregnancies in women aged over 40 years are also associated with more nonsevere complications, premature births and interventions at birth.<sup>17</sup> Women over the age of 35 years have an increased risk of specific fetal abnormalities, including structural<sup>18</sup> and chromosomal<sup>19</sup> abnormalities. While some tests are noninvasive, others require invasive techniques that are associated with an additional miscarriage risk.<sup>20</sup>

Increasing numbers of women are using assisted reproductive technology (ART) to improve their conception outcomes. The average age of Australian women using ART to achieve a pregnancy has risen from 31 years in 1993 to just under 34 years in 2009, and one in 4 women have used ART by 40 years of age.<sup>21</sup> However, some younger women may not realise that ART cannot entirely or reliably compensate for the decline in fecundity associated with age and delayed attempts at conceiving.<sup>17</sup> For women over 30 years of age using ART, each additional year in age was associated with an 11% reduction in the likelihood of achieving pregnancy and a 13% reduction in the chance of a live delivery.<sup>22</sup> In addition, the stress related to fertility treatment may discourage, and ultimately deter, women and their partners from further attempts at conception.<sup>23</sup>

**Fact 3: Some women's ideas about their fertility don't match the 'scientific facts'**

Research has shown that women are ill informed about the relationship between age and infertility. An Australian study of women aged over 35 years seeking ART found that 18% were unaware of the impact of age on fertility.<sup>7</sup> Similarly, in the USA, 88% of women overestimated by 5–10 years the age at which fertility begins to decline<sup>24</sup> while in Sweden, researchers found that university students planned to have children at ages when female fertility is decreased without being sufficiently aware of the age related decline in fertility.<sup>25</sup>

In addition, women may be misinformed about the ability of ART to overcome the 'biological clock' and its efficacy more generally and may overestimate their chance of having a baby by using these techniques.<sup>26,27</sup> Weston and colleagues<sup>10</sup> found that 60% of men and women believed that they or their partners were likely, or very likely, to conceive if they used in vitro fertilisation (IVF) with only 8% saying success was unlikely. They also found that despite the declining live birth rate from IVF with increasing age, those aged in their late 30s were just as likely as those in their 20s or early 30s to be optimistic about their ability to have a child using IVF techniques.<sup>10</sup> This suggests that people of childbearing age may be unaware of the importance of the female and male partner's age in determining the chance of having an IVF baby and may see it as a fallback option.<sup>28</sup>

Women may also have limited knowledge of the association between fetal abnormality and increasing maternal age,<sup>29</sup> as well as the role of prenatal testing for the fetal abnormalities associated with maternal age.<sup>29</sup> One study found that while nearly all women had heard of Down syndrome, less than half were aware that the condition involved intellectual disability.<sup>30</sup>

### Patient autonomy, informed decision making and reproductive rights

Patient autonomy, or 'self rule', is a key, if not an overriding consideration in contemporary medical practice and medical law.<sup>31,32</sup> An autonomous patient is one who is able to make voluntary and informed decisions about their healthcare.<sup>32,33</sup> Fostering patient autonomy is a key objective of ethical medical care, a responsibility that includes an obligation on the part of medical practitioners to ensure that their patients obtain an understanding of all relevant information so that they may participate in, and make informed choices about, their healthcare. Where fertility is concerned, the principle of autonomy dictates that women have a right to know and understand their fertile body.<sup>34</sup> This requires medical professionals to assist their patients to develop an adequately sophisticated understanding of their fertility and its limits so that they can make reproductive health decisions consistent with their short and long term fertility life plans. The

World Health Organization identifies sexual and reproductive health as a human right and a priority that should be promoted through woman centred care in comprehensive primary care settings.<sup>35</sup>

With this in mind, some have advocated intervention by GPs calling for 'positive family planning'.<sup>36</sup> Bachrach<sup>36</sup> argues that when a childless woman comes for a health check-up or for contraceptive advice or prescription, GPs should use the opportunity to refresh the woman's understanding of her reproductive lifespan, discuss her plans regarding childbearing and make contraceptive and other recommendations commensurate with those plans. However, others argue that positive family planning approaches are inconsistent with a GP's ethical obligation to promote patient autonomy, and that where reproductive information giving is perceived as encouragement by GPs for female patients to get pregnant at a younger age, it would be paternalistic and 'politically incorrect'.<sup>24</sup>

Some research suggests that GPs may be unwilling to participate in these types of discussions with patients.<sup>37</sup> However, little is known about whether GPs are undertaking such interventions, their capacity to do this work, the obstacles to effective and ethical communication on such sensitive issues and whether such efforts would be welcomed by, and prove informative to, patients. More research into this important area is needed (Table 2).

### Summary

Medical professionals and society in general should support women to achieve their individual reproductive goals, whether those goals include a desire for many children or none at all. While there are many socioeconomic factors that

influence women's reproductive decision making, lack of appropriate knowledge about age related decline in fertility and the inability of reproductive technologies to overcome diminished fecundity in later life may be contributory factors. By informing women of the gap between fertility desires and reproductive outcomes, the medical consequences of delayed childbearing, and the discrepancy between lay knowledge and current scientific knowledge of age related fertility issues, primary care providers are promoting informed decision making as a means of fostering patient autonomy. However, GPs and other primary care providers may perceive imparting this information as paternalistic or overstepping professional boundaries.

Limited research has been undertaken in this area and there is need to investigate how best to provide this information to women (ie. via individual or public health-type approaches). Research should also be directed at understanding how GPs and primary care providers perceive discussions with female patients around childbearing and fertility intentions and how decisions to delay childbearing affect family structure and women's physical and mental health. Only then can evidence based supports be implemented to better enable women to achieve their fertility goals. Irrespective of the particular reproductive outcome for any given woman, medicine has an important role to play in ensuring women's fertility outcomes are a matter of choice, not chance.

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**Table 2. Areas for further research by population group**

#### Women

- Perceptions and beliefs about fertility
- Perceptions regarding the opportunities and limitations of achieving desired number of children
- Emotional and pragmatic responses to final fertility outcomes

#### General practitioners

- The effects of implementing positive family planning in general practice
- Barriers and enablers to implementing positive family planning in general practice
- Perceptions by patients of GPs delivering positive family planning

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