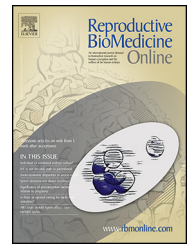




ELSEVIER

www.sciencedirect.com
www.rbmonline.com



ARTICLE

Seven out of 10 couples treated by IVF achieve parenthood following either treatment, natural conception or adoption




Pénélope Troude ^{a,b,c,d,*}, Gaëlle Santin ^e, Juliette Guibert ^f, Jean Bouyer ^{a,b}, Elise de La Rochebrochard ^{a,b} for the DAIFI Group

^a Institut National d'Etudes Démographiques (INED), F-75020 Paris, France; ^b CESP, Univ. Paris-Sud, UVSQ, INSERM, Université Paris-Saclay, Villejuif, France; ^c AP-HP, Hôpital Lariboisière, F-75475 Paris, France; ^d Univ. Paris Diderot, Sorbonne Paris Cité, Service de Santé Publique et Economie de la Santé, F-75475 Paris, France; ^e InVS, Occupational Health Department, F-94415 Saint-Maurice, France; ^f Laboratoire de Procréation Médicalement Assistée, Institut Mutualiste de Montsouris, 2 boulevard Jourdan, F-75014 Paris, France

* Corresponding author. E-mail address: penelope.troude@aphp.fr (P Troude).



Pénélope Troude is a public health MD. She has a PhD in epidemiology. She works in the Public Health department of an university hospital and is involved in improvement of care quality. She is working on evaluation of professional practices, care organization, outcomes and medical management of infertile couples.

Abstract The aim of this study was to explore the achievement of parenthood 8 years after starting IVF, considering multiple pathways to parenthood during and after IVF treatment. Medical data on 6507 couples who began IVF between 2000 and 2002 were obtained from the databases of eight French IVF centres. Information on long-term outcome was available for participants in the 2008–2010 postal survey. Multiple imputation methods were used to account for missing data. Eight years after starting IVF, 71% (95% CI 69 to 74) of treated couples had a child. This included 41% live births after IVF in the IVF centre, 7% live births after another treatment or after IVF in another centre, 12% live births after spontaneous conception and 11% adoptions. This study provides a longitudinal overview of paths to parenthood among couples successfully and unsuccessfully treated by IVF. These results should give hope to infertile couples as seven out of 10 couples finally became parents. However, IVF is not the only path to parenthood, and couples should be informed of the other possible avenues. 

© 2016 The Authors. Published by Elsevier Ltd on behalf of Reproductive Healthcare Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

KEYWORDS: follow-up studies, in vitro fertilization, multiple imputation, parenthood

<http://dx.doi.org/10.1016/j.rbmo.2016.08.010>

1472-6483/© 2016 The Authors. Published by Elsevier Ltd on behalf of Reproductive Healthcare Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Introduction

Infertility is estimated to affect one couple out of four (Slama et al., 2012), and the number of couples seeking medical help has clearly increased in recent decades (Boivin et al., 2007; Bushnik et al., 2012a). In Canada, for example, the prevalence of past-12-month infertility has tripled between 1984 and 2010 (Bushnik et al., 2012b). Assisted reproductive techniques, and especially IVF, are now widely used in developed countries (Kupka et al., 2016; Sunderam et al., 2015). The success of IVF has long been measured on the basis of pregnancy rate per one IVF cycle, but this indicator has been debated (Min et al., 2004; Pinborg et al., 2004). Several proposals have been made for considering success as delivery of healthy babies. With patient counselling in mind (Malizia et al., 2009; Moragianni and Penzias, 2010), a more relevant approach has been developed by reporting success rates in terms of cumulative live-birth rate (CLBR) per woman during her entire treatment (Gnoth et al., 2011; Maheshwari et al., 2015; Malizia et al., 2013; McLernon et al., 2016). This CLBR indicator gives a more long-term view of the chance of success by considering not just a single IVF cycle but all the IVF cycles undergone by a woman. For instance, in a recent Japanese study, the CLBR was estimated to be 38% (Bodri et al., 2014).

On completion of the various IVF cycles undertaken by couples, leaving the IVF centre childless is usually perceived as the end of any hope of parenthood. It is timely, however, to challenge such a view and to explore the long-term outcome of couples leaving an IVF centre childless. Indeed, patients often ask about their chances of conceiving naturally, i.e. without any medical help (Cahill et al., 2005), and some studies have shown that spontaneous pregnancy can occur after unsuccessful IVF treatment (Cahill et al., 2005; Osmanagaoglu et al., 2002). Moreover, some couples shift their parental project to adoption as another path to fulfill their desire for parenthood (Sydsjö et al., 2005). Few studies have been able to provide a full overview of these different paths to parenthood among unsuccessfully treated couples (de La Rochebrochard et al., 2009; Walschaerts et al., 2012; Wischmann et al., 2012). Indeed, studies on the long-term outcome of couples treated by IVF require follow-up over several years. Such a long-term approach is hampered by a high risk of loss to follow-up, even when costly longitudinal protocols are used (Chen et al., 2011; Cotter et al., 2005; Robinson et al., 2015). These methodological issues may explain the sparse results published so far.

The aim of this study was to provide a long-term overview of the different paths to parenthood 8 years after starting IVF. It considers births achieved after several cycles of IVF treatment in the centre (the CLBR), births achieved after other subsequent treatments, as well as spontaneous births obtained without medical assistance. To develop a full perspective of paths to parenthood, adoption was also taken into account as another way for couples to fulfill their desire to become parents.

Materials and methods

Population and sources of data

DAIFI (the French acronym for outcome after IVF) is a retrospective cohort (Troude et al., 2012). It is an exhaustive

database of all 6507 couples who began IVF between 2000 and 2002 in eight French IVF centres (among the 93 IVF centres in metropolitan France). This study received approval from the French Data Protection Authority on 9 September 2005 (authorization number 05-1334).

Data collection included two complementary sources: medical data obtained from the IVF centres and information based on a postal questionnaire. In this paper, information from the postal questionnaire was used to explore long-term outcome among unsuccessfully treated couples. A full presentation of the postal survey is available elsewhere, including a detailed analysis of participation (Troude et al., 2012).

Medical data collected in the whole cohort

Medical data were obtained from the IVF centre databases. All IVF treatments carried out in the centres between 2000 and 2007 were exhaustively recorded for the 6507 couples of the cohort. Medical data included sterility assessments for the couple (age, origin, type and duration of infertility), information on each IVF treatment carried out in the centre (number of oocytes retrieved, number of embryos obtained, number of embryos transferred, pregnancy after fresh or frozen embryo transfer) and on the outcome of any ensuing pregnancies. On the basis of these medical data, two groups were identified among the 6507 couples of the cohort: 2691 couples successfully treated in the centre and leaving it with a child, and 3816 couples unsuccessfully treated in the centre and leaving it childless (Figure 1).

Long-term outcome data among unsuccessfully treated couples

Long-term outcome was explored in the postal questionnaire carried out between 2008 and 2010. Different steps toward parenthood were considered: live birth after another treatment at a later date (further IVF treatment in another centre or another treatment such as sperm insemination) and live birth after spontaneous conception. As well as these paths to 'biological' parenthood, the study also explored adoptive parenthood as an alternative path for the couple to fulfill their desire to have a child.

In the postal survey, to increase chances of contact, every effort was made to obtain updated validated mailing addresses through the central hospital billing department and through the French postal system. Of the 3816 couples unsuccessfully treated in the IVF centre, 2274 couples (60%) were contacted in the postal survey 8 years after registration in the IVF centre (Figure 1).

To increase the chance of response among contacted couples, effective 'response-enhancement' strategies were used (Edwards et al., 2002; MacDonald et al., 2009). In particular, a relatively short, colour-printed questionnaire designed to be user-friendly was distributed to participants, and stamped-addressed envelopes were provided. If necessary, a reminder was sent, including a second copy of the questionnaire, requesting an explanation of non-participation. Of the 2274 couples contacted by mail, 1100 couples (48%) returned a completed questionnaire (Figure 1). This response

Download English Version:

<https://daneshyari.com/en/article/5696639>

Download Persian Version:

<https://daneshyari.com/article/5696639>

[Daneshyari.com](https://daneshyari.com)