SPECIAL CONTRIBUTION

# Fertility patients' experiences of cross-border reproductive care

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**Objective:** To obtain pertinent information from individuals who have either experienced cross-border reproductive care, or have considered doing so.
**Design:** International online survey of patients in collaboration with patient support groups in Australia and Canada.
**Result(s):** Analysis of data is based on 95 usable responses, of which 28 were from individuals who indicated that they had previously participated in cross-border reproductive care. Key areas investigated in the survey included the reasons for undertaking or considering cross-border reproductive care, the specific reproductive services sought, countries in which reproductive care is sought, and participants' experiences of cross-border reproductive services. This study identified the availability of counseling services and other factors affecting patient experiences as important issues that participants considered should be taken into account by potential users of cross-border reproductive care. The internet and other media were shown to be significant sources of information about reproductive services in other countries.
**Conclusion(s):** This study highlights an essential need for accessible, accurate, and reliable information to help ensure safe and high quality care, as well as emphasizing the role that clinics in patients' home countries, feedback from other patients, governments, regulatory agencies, and Internet-based services might play in making this information more readily available. (Fertil Steril® 2010;94:e11–e15. ©2010 by American Society for Reproductive Medicine.)

**Key Words:** Cross-border reproductive care, online survey, Internet

Involuntarily childless individuals experiencing fertility difficulties may decide to travel to another country to obtain reproductive care for a variety of reasons, including: unavailability of treatment in their home country (e.g., because of ethical, legal, or religious reasons, safety concerns, or a lack of necessary skilled personnel or technical facilities); long delays in accessing treatment in their home country (e.g., because of a lack of expertise or technical facilities or because of a shortage of donor gametes or embryos); lower cost; higher success rates; better standards of care; exclusion in their home country on the basis of age, marital status, or sexual orientation; temporary or permanent residence in another country; a desire to protect their privacy, and the opportunity to combine treatment with a holiday (1–6).

No reliable data are available concerning recourse to cross-border reproductive care; available evidence is largely derived from reports provided by investigative journalists—often posing as fertility patients—and anecdotal accounts on personal blogs and support group Websites. However, particular concerns have been expressed about illegal activities (7, 8), exploitation of donors (9, 10), and placing additional demands on health care services in patients' home countries (11).

## MATERIALS AND METHODS

To gather information directly from people who have either experienced cross-border reproductive care or have considered doing so. Assisted Human Reproduction Canada on behalf of the planning committee of the "First International Forum on Cross-border Reproductive Care: Quality and Safety" commissioned an on-line pilot survey undertaken by this investigator. The survey was supported by one Australian patient organization (ACCESS), and by two Canadian patient organizations (Infertility Awareness Association of Canada, and Infertility Network). The questionnaire was based on one used in a "fertility tourism" survey undertaken in early 2008 by a patient organization in the United Kingdom (Infertility Network UK) (12), and was developed in conjunction with the three partner organizations and Assisted Human Reproduction Canada. The survey was "live" for 3 months, from July 1 until September 30, 2008, and was accessed via the Websites of the three partner organizations. The study received ethical approval from the Research Ethics Panel in the School of Human and Health Sciences at the University of Huddersfield.

## RESULTS

One hundred thirty-one online submissions were made. Thirty-six of these were not usable either because insufficient information was supplied to enable analysis to be undertaken or participants indicated that they were neither actual nor intending users of cross-border reproductive care. Of the 95 usable responses, 28 were

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from individuals who indicated that they had actually participated in cross-border reproductive care.

### Where Do Potential Patients Find Information?

The Internet (64%) and other media (20%) represent the main sources of information accessed by actual and prospective patients regarding cross-border reproductive care. Other reported sources of information include patient support groups (21%), other patients (15%), and the clinic treating the individual in their own country (14%).

### Who Seeks Reproductive Services in Another Country?

The vast majority of the 91 participants who disclosed their age were over 30 years of age (93%). Of the 88 participants providing information to this question, 86% had received treatment in their own country before seeking or considering seeking treatment in another country, and more than half (56%) of the 64 participants providing information about the length of time they had had treatment in their home country before considering cross-border reproductive care reported having had such treatment for at least 3 years.

### Countries in Which Participants Were Considering Treatment

Geographic contingency clearly plays some part in determining destinations for reproductive services, as indicated by the 69 participants who cited at least one country in which they had received or planned to seek treatment. Apart from clinics in other regions of the participant's home country (i.e., Australia and Canada), the United States and Mexico were the most frequently mentioned destinations. However, a wide range of specific countries—a further 20—were listed (Argentina, Bangladesh, Barbados, Belgium, Cyprus, the Czech Republic, Denmark, France, Greece, India, Israel, Italy, The Netherlands, Russia, South Africa, Spain, Thailand, Turkey, Ukraine, and the United Kingdom), together with general regions in Africa, Asia, Eastern Europe, and South America. Although most participants specifying a country named one country only, a small number—those who were still considering their options—listed multiple potential destinations. Some identified countries do not have strong reputations for offering reproductive services. Although the survey did not explore detailed reasoning behind individual choices, the characteristic of both Australia and Canada as "migrant nations" should not be overlooked. In both countries, many migrant residents retain family ties in their country of origin with a consequent impact on perceptions of this as a suitable location for treatment, because of familiarity, connections, and access to donor gametes of their own ethnic/racial background. This is an area that should be explored in more depth in future studies.

**TABLE 1**

**Services in which participants had participated or were considering.**

| | Participated (n = 28) | | Considering (n = 59) | |
|---|---|---|---|---|
| **Service** | **N** | **%** | **N** | **%** |
| Oocyte donation | 15 | 54 | 18 | 31 |
| Sperm donation | 4 | 14 | 6 | 10 |
| Combined oocyte/sperm donation | 2 | 7 | 0 | 0 |
| Embryo donation | 2 | 7 | 4 | 7 |
| Surrogacy | 1 | 4 | 10 | 17 |
| IVF | 7 | 25 | 39 | 66 |
| ICSI | 5 | 19 | 18 | 31 |
| IUI | 3 | 11 | 7 | 12 |
| Tubal surgery | 2 | 7 | 0 | 0 |
| Ovulation induction | 0 | 0 | 6 | 10 |

*Note:* ICSI = intracytoplasmic sperm injection; IUI = interauterine injectin.

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### Cross-border Services Used

Most of the 28 participants who had undertaken cross-border reproductive care had used oocyte donation (54%; Table 1). Fewer participants had used other third-party procedures, such as sperm donation, embryo donation, or surrogacy. Regarding procedures not involving a donor or surrogate, participants had used IVF, intracytoplasmic sperm injection, interuterine injection, and tubal surgery.

Of the 59 participants who had not already undertaken cross-border reproductive care who replied to this question, many respondents were considering several services, with IVF, oocyte donation, intracytoplasmic sperm injection, and surrogacy the most commonly investigated services (Table 1).

Twenty-one respondents provided information about their country of residence, the country in which they had received fertility services and the nature of the services undertaken (Table 2), thus providing some information about actual as opposed to potential patterns of cross-border reproductive care (13 of these were from Canada, 3 from Australia, 2 each from the United

**TABLE 2**

**Country of residence, destination country, and services received by patients who had used reproductive services in another country.**

| Country of residence | Destination country | Service received |
|---|---|---|
| Australia | USA | Oocyte donation |
| Australia | USA | IVF/ICSI |
| Australia | USA | Surrogacy |
| Canada | India | Oocyte donation |
| Canada | Mexico | Oocyte donation |
| Canada | USA | Oocyte donation[a] |
| Canada | Czech Republic | Combined sperm and oocyte donation |
| Canada | USA | Embryo donation |
| Canada | USA | Imported sperm from USA |
| Canada | USA | Procedure to unblock fallopian tubes |
| Greece | Spain | Oocyte donation |
| UK | Denmark | Sperm donation |
| UK | Russia | Combined sperm and oocyte donation |
| USA | Czech Republic | Oocyte donation |
| USA | Mexico | Sterilization reversal |

*Note:* ICSI = intracytoplasmic sperm injection.

[a] Seven separate instances reported. In one instance the participant indicated that her donor had traveled from the United States to Canada to complete the procedure.

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Kingom and the United States, and 1 from Greece). Of these, more than half [12] reported undergoing oocyte donation, using donors in the Czech Republic, India, Mexico, Spain, and the United States, whereas two participants reported undergoing combined oocyte and sperm donation in the Czech Republic and Russia, respectively. Although the relatively small numbers do not permit generalizations to be made, it is worth noting that the most frequently reported procedure undertaken was by Canadians using an American oocyte donor (seven instances), with one of these reporting that her donor had traveled from the United States to Canada for the procedure. Other forms of gamete and embryo donation and surrogacy were reported by a further six respondents, indicating that third party assisted conception procedures comprised by far the principal reproductive services sought by this group of individuals.

## Why Seek Cross-border Reproductive Care?

As might be expected from the above findings, the availability of donor oocytes/sperm (noted by 21 [75%]) of all participants who had already undertaken cross-border reproductive care, emerged as the most frequently reported "headline" reason for seeking cross-border reproductive care. Other reasons, identified by at least half of all such participants, were: success rates (n = 18; 64%); short waiting times (n = 17; 61%); cost of treatment (n = 15; 54%), and unavailability of services in home country (n = 14; 50%).

## Who Helped with Arrangements?

Most participants who had undertaken cross-border reproductive care made their own arrangements (n = 19; 76%), although five (20%) indicated the involvement of a third party other than their home country clinic in making these arrangements. What emerges from these responses, taken together with the heavy use of the internet and other media as sources of information and the lack of involvement of domestic clinics in making any arrangements, is that to a large extent, those contemplating cross-border reproductive care are reliant on their own resources.

## Experiences of Cross-border Reproductive Care

Given that the objective of any form of reproductive services is the conception of a child, the fact that over half of the participants who had experienced cross-border reproductive care [14] came away with a child provides evidence of some measure of success. Twenty-five participants who had experience of cross-border reproductive care provided information about positive and negative aspects of their treatment. Judged exclusively in terms of frequency of responses, positive experiences [117] significantly outnumbered negative experiences [43]. The most frequently reported positive and negative experiences are outlined in Tables 3 and 4.

**TABLE 3**

**Reported positive experiences of past patients of CBRC.**

| Nature of positive experience | N | % |
|---|---|---|
| Availability of donor eggs/sperm | 18 | 72 |
| Short waiting time | 15 | 60 |
| Cost | 12 | 48 |
| Higher success rates | 12 | 48 |
| Clinic facilities | 12 | 48 |
| Staff attitudes | 12 | 48 |
| Atmosphere at clinic | 10 | 40 |
| Opportunity to "take a holiday at the same time" | 6 | 24 |
| Opportunity to transfer higher number of embryos | 3 | 12 |

*Note:* CBRC = cross-border reproductive care.

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**TABLE 4**

**Reported negative experiences of past patients of CBRC.**

| Nature of negative experience | N | % |
|---|---|---|
| Difficulty finding clinic in participant's home country to undertake tests and scans | 8 | 35 |
| Travel difficulties | 8 | 35 |
| Higher costs than expected | 8 | 35 |
| Language problems | 5 | 22 |
| Lack of regulation in destination country | 3 | 13 |
| Legal/liability issue(s) | 1 | 4 |

*Note:* CBRC = cross-border reproductive care.

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## Availability and Use of Counseling Services

Twenty-three participants who had undertaken cross-border reproductive care responded to questions about counseling. Although seven of the nine participants who reported receiving counseling indicated their satisfaction with it, it is evident that counseling per se does not enjoy an especially high regard among those responding to the survey. None of the three participants who declined the offer of counseling, and only 3 of 11 participants who were not offered counseling, thought it would have been useful. These findings suggest that if counseling is to be seen as an important service, it needs to do more to ensure that those seeking cross-border reproductive care can be persuaded of its potential relevance and benefits—at least part of which may include convincing other professionals of its value.

## Factors to be Taken into Account by Potential Patients

Although all participants in the survey (not simply those who already had experience of cross-border reproductive care) were given the opportunity to respond to this question, there was a reasonable measure of concordance between the factors identified here and those identified by participants as important in regard to their own treatment. Three instrumental factors (cost of treatment, success rates, and short waiting times) topped the list of those identified here, although availability of donor oocytes/sperm was also identified, as was the more general "unavailability of services in home country." The opportunity to have a higher number of embryos transferred assumed a low level of relevance for participants, whereas no one identified the opportunity to "take a holiday at the same time." Similarly, the implications for any child of being conceived as the result of treatment in a country other than the individual's home country was considered important by only 14 (18%) participants, a low level of response that should warrant further discussion and study. Totally absent from participants' considerations were clinic facilities, staff attitudes or atmosphere at the clinic.

As indicated above, participants who had actually received cross-border reproductive care most frequently reported the internet and

other media as providing information about reproductive services in other countries. In comparison, the impact of recommendations from the clinic providing services in the home country or of reports from other patients was more muted, although it is possible that contact with, and information from, other patients in on-line forums could have been included as Internet sources. However, both of these sources (40% and 60% of respondents, respectively), received a somewhat higher level of endorsement for future users of such services to take into account.

## DISCUSSION

Before drawing conclusions from the study, a comment needs to be made about its limitations. Online surveys provide a means of accessing otherwise difficult-to-access groups who have ready access to technology, but might not be motivated to take part in other forms of research or who—as in the case of this particular group—are dispersed over a vast geographic area; however, they also have their limitations (13). In this survey, participants were self-selected, and because data were self-reported anonymously, it is not possible to guarantee the accuracy of the information they provided. Participants may be prone to respond in socially desirable ways or to misrepresent their "real" views in relation to the information they provide. Furthermore, the survey is open to multiple responses from the same individual. Although the manageable number of submissions enabled a visual inspection of each of these to be undertaken by the investigator and which revealed no attempt to submit duplicate responses, it would still be possible for the same individual to post multiple responses containing different information. The only safeguard against this having occurred to any great extent here—and in respect of the more general issue of participant integrity—is why anyone would take such trouble to falsify information. However, there is no reason to assume that this survey was especially prone to such manipulation. The use of precategorized answers, while facilitating participant response and data analysis, may also restrict the breadth of responses that could have been achieved by increasing the scope for "free text" responses.

A key finding from this study is that individuals contemplating cross-border reproductive care are largely reliant on their own resources regarding seeking and evaluating information about services (drawing heavily on the Internet and other media) and making practical arrangements, thus highlighting an essential need for accessible, accurate, and reliable information. This is primarily information about current "best practice," "cutting edge" procedures (especially where such procedures may be experimental or unproven), the availability of services, specific treatments, success rates, and costs. Participants noted their heavy reliance on Internet and other media for information, although several mentioned that this could not necessarily be verified in advance, and two participants specifically complained that they had been the victims of misinformation. It is salutary to note both the ever-changing nature of on-line information and the sheer volume of information available on the Internet. Although ostensibly designed to facilitate consumer choice, this deluge of personal and professional Websites may paradoxically be so overwhelming as to compromise real informational choice. To illustrate this point, a "Google" search undertaken on May 25, 2009, located 7,650,000 sites for "egg donor agencies," 1,230,000 for "sperm banks," 1,060,000 for "IVF holidays," 540,000 for "surrogacy agencies, and 331,000 for "IVF clinics." A similar search undertaken on January 9, 2010, located 1,230,000 sites for "egg donor agencies," 3,610,000 for "sperm banks," 327,000 for "IVF holidays," 973,000 for "surrogacy agencies" and 1,200,000 for "IVF clinics."

One potential way forward identified by participants is increased engagement by clinics in the home country, given that virtually all those seeking cross-border reproductive care have already undertaken treatment with a clinic in their own country. However, if this were to be developed, any such involvement—and especially recommendations regarding particular treatments and particular clinics in other countries—would need to be legal, consistent with any regulatory requirements within the jurisdiction in which the clinic operates, conform to professional codes of practice to which clinic personnel have subscribed, and guided by concern to safeguard the interests of the patient, of third parties (such as surrogates and donors) and of any children conceived as a result of the procedure. Where a clinic providing treatment becomes aware of a patient's intentions to seek treatment in another country, it should make available advance information about the support services that it can provide, including any legal or regulatory constraints on such services. The need for independent reliable information is also essential (14, 15). More use could also be made of feedback from other patients. This survey did not investigate the ways in which feedback from former patients is accessed or used, although this is probably multifactorial, and likely includes a large element of happenstance and serendipity. The extent to which governments and/or regulatory agencies should play a role in promoting patient feedback should also be further considered. It is inevitable that the Internet will continue to play a large role in dissemination of information and the best hopes for improved services lie in making more sophisticated, systematic, and effective use of this, taking a lead from existing on-line services that enable patients to find out about physicians and other healthcare professionals and also to post their evaluations of services provided by particular individuals (see, e.g., "RateMD.com" at www.ratemds.com; "Jameda.de" at www.jameda.de; "Checkthedoc.de" at www.checkthedoc.de) and portable personal health records that can be accessed on-line via a secure URL anywhere (e.g. "Google Health" at www.google.com/health; "HealthVault" at www.healthvault.com).

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