Research Note

Decisive factors in medical tourism destination choice: A case study of Isfahan, Iran and fertility treatments

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ABSTRACT

The birth of the first in vitro fertilized baby, followed by further advances in the field of assisted reproductive technology (ART) has made this technology one of the most attractive tourism innovations among the different categories of medical tourism. In addition, factors such as legal, moral, religious and ethical issues play important roles in choosing reproductive tourism destinations. The aim of this study was to examine the factors influencing destination choice in infertile couples who referred to the Isfahan Fertility and Infertility Center in Isfahan, Iran. Field evaluation was carried out based on a documentary survey and questionnaire completed by interviewers. Among a target group of 80 infertile couples, 67 were interviewed. The majority of participants in this study were Muslim couples who traveled for reproductive tourism to Iran. It can be concluded that religious affinity may have paramount importance in reproductive medical tourism for Muslim infertile couples.

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1. Introduction

The growth of medical tourism, and the role of fertility treatments within this form of tourism have attracted academic studies to explore its effects and improve future planning. According to Zegers-Hochschild, Schwarze, and Alam (2008), approximately 5–30% of the world’s population have been affected by primary and secondary infertility. As a result of recent advances in the field of assisted reproductive technology (ART), followed by a rise in the population of medical tourists, the number of infertile couples who seek international fertility facilities has increased as well. Nowadays, many countries worldwide offer a vast range of medical services which differ in quality and cost (Burkett, 2007). Thus infertile couples have choices of medical tourism destinations from among these countries. Many factors may influence the destination choice among this category of tourists. The main objectives of this study are to identify the demographic profiles of non-Iranian infertile couples who have referred to the Isfahan Fertility and Infertility Center in Iran and investigate factors which affect destination choices among this group of tourists.

2. Place of study

Many hospitals and fertility clinics in the Middle East provide infertility treatment through ART (Sills et al., 2007). More than 70 clinics and specialized medical centers in Iran offer infertility treatment to both Iranian and non-Iranian couples.

Iran, located in the Middle East, is surrounded by Muslim countries such as Iraq, Afghanistan, Pakistan, Turkey, and Azerbaijan, to name a few. The majority of Iran's population is Muslim of the Shi'a sect. Many natural tourist attractions, historical and archeological sites with more than 7000 years of urban settlements, in addition to famous cities that have rich Islamic and pre-Islamic cultural backgrounds such as Isfahan, Shiraz and Yazd are located in Iran (Zendeh Del, 2001). Moreover, many sacred places for Shi'a Muslims termed “Imam Zadeh” are located throughout Iran (Ministry of Culture and Islamic Guidance, 2003).

Isfahan, one of the largest cities in Iran, is located in a central part of the country with numerous historical sites and heritage areas that are mostly from the Islamic period (Hooshangi, 2003). A vast range of tourism facilities and hospitable nature encourages many domestic and international tourists to visit Isfahan. Isfahan also provides medical facilities such as general hospitals and specialty medical centers. Isfahan Fertility and Infertility Center is a nongovernmental fertility clinic which provides reproductive services to both Iranian and non-Iranian couples.
3. Literature review

Numerous studies in the field of decisive factors on the choice of destination for medical tourism have been carried out recently (Blyth & Farrand, 2005; Connell, 2006; Turner, 2007). Some research pertains to numerous types of illnesses while others are more focused and study particular illnesses and conditions.

Many studies in the field of medical tourism show cost benefit to be one of the initial factors which encourages medical tourists to travel abroad for treatment (Burkett, 2007; Christine, 2007; Connell, 2006; Howze, 2007; Nachtigall, 2006; Pennings, 2002; Ramírez de Arellano, 2007; Turner, 2007). The distance between the patients' country of origin and their medical destination affects both their transportation cost and convenience (Connell, 2006).

While visiting the destination country, many medical tourists try to find a popular tourism country in which they could enjoy their trip during the treatment period (Connell, 2006; Turner, 2007).

All the above-mentioned factors were pull factors which create demand, while certain push factors in the traveler generating region seem to be important as an origin of tourism demand (Tosun, 2005). In addition to these legal restrictions, in some countries worldwide ART, mainly those related to donation or surrogate motherhood are illegal (Blyth & Farrand, 2005; Heng, 2007; Inhorn, 2005, 2006; Jones & Keith, 2006; Penning, 2002, 2004; Penning et al., 2009; Shenfield et al., 2010) because of political (Inhorn & Fakih, 2006), moral (Pennings, 2002) or religious ethical issues (Heng, 2006). Some studies have found the term “reproductive exile” more accurate than “reproductive tourism” (Inhorn & Patrizio, 2009; Matorras, 2005). In addition to these legal restrictions, in some cases, barriers are due to the infertile couple's religious beliefs.

Sunni and Shi’a are two branches in Islam. The majority of Muslims (80–90%) are Sunni. Shi’a, another branch of Islam, is mostly located in Iran, Iraq, Lebanon, Bahrain, Syria, Saudi Arabia, Afghanistan, Pakistan and India (Inhorn, 2006). The Shi’a and Sunni branches have different rules (orders) concerning ART. In Shi’a, surrogate motherhood is allowed as well as egg donation under certain circumstances (Inhorn, 2006). In the Sunni branch however, all forms of third party donor, including surrogacy are forbidden (Inhorn, 2003, 2006). Fertility through ART in a religiously correct fashion seems to be very important to many Muslim infertile couples (Inhorn, 2006). It is proposed that a study of this minority group of reproductive tourists helps to plan for future medical tourism programming.

4. Patients and methods

A documentary survey and questionnaire were the major research techniques used in this study. At first, a documentary survey was carried out on the medical records of non-Iranian infertile couples who referred to the Isfahan Fertility and Infertility Center during the last five years. Then, a questionnaire that consisted of eight simple questions was designed to find reproductive tourists' attitudes toward factors that affected their destination choice of infertility treatment services. The questionnaire was measured by the five point Likert Scale which ranged from “strongly agree” to “strongly disagree”. Its validity was confirmed by university faculty professors and a literature review, and the reliability coefficient was confirmed by Cronbach alpha (0.725) after a pilot test. The Persian questionnaire was then translated into English and Arabic, as all respondents could speak and understand either of these three languages. The main data was gathered by interviews (assisted by professional Arabic and English interpreters). Seventy infertile couples (among 80 infertile tourists who referred to the center during the study period) were interviewed and 67 usable questionnaires were analyzed. Both the documentary survey and interviews were carried out anonymously and an informed consent form was obtained from all volunteer participants. The study was carried out during a six month period from September 2009 to March 2010. Collected data were analyzed using descriptive statistics and the chi-square test, with SPSS 16.0 package software.

5. Results

5.1. Participants' characteristics

The first section of the questionnaire was designed to obtain demographic information about the respondents. As shown in Table 1, according to religion, it was noted that all respondents were Muslim couples, of which 64.2% were Iraqi, 17.9% Afghan, 7.5% Pakistani and 10.4% were infertile couples from other countries. The majority were Shi’a (94%) and the remainder (6%) Sunni Muslims (three Pakistani and one Iraqi couple). A total of 82.1% of these couples entered Iran by land while the remaining 17.9% traveled by air. Only 6% of these couples encountered problems during their applications for a visa. Of couples, 71.6% rented houses during their treatment period, 16.4% of them stayed at hotels and the remaining 11.9% stayed with their Iranian resident friends or relatives. In addition, most Afghan couples mentioned that they were previously in Iran as social workers (11 out of 12). Finally, 32.8% of males and 49.2% of females had a high school diploma or below, whereas 67.2% of males and 50.8% of females were university graduates.

5.2. Statistical analysis

Table 2 shows the frequency of answers to each question and chi-square test results.

An open ended question was added to statement number five “Which kind of attractions in Iran do you like the most?” Of respondents, 68.6% asserted that they were highly interested in pilgrimage; the majority mentioned Mashhad (the most religiously important city in Iran, particularly for Shi’a Muslims). The other 8.9% were interested in visiting historical sites in Isfahan and Shiraz, and the remainder (22.5%) did not answer this question.

Based on the results gained from chi-square analysis (all significant at the level of 0.01) and frequency of responses, it was determined that the infertile couples who participated in this study agreed about that all the above factors had an influence on their decision making.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Demographics.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable</td>
<td>Category</td>
</tr>
<tr>
<td>Religion</td>
<td>Shi’a Muslim</td>
</tr>
<tr>
<td></td>
<td>Sunni Muslim</td>
</tr>
<tr>
<td>Country of origin</td>
<td>Afghanistan</td>
</tr>
<tr>
<td></td>
<td>Iraq</td>
</tr>
<tr>
<td></td>
<td>Pakistan</td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td>Transportation type</td>
<td>Land roads</td>
</tr>
<tr>
<td></td>
<td>Airlines</td>
</tr>
<tr>
<td>Accommodation type</td>
<td>Hotel</td>
</tr>
<tr>
<td></td>
<td>Friend or relative's house</td>
</tr>
<tr>
<td>Education level (male)</td>
<td>University graduate</td>
</tr>
<tr>
<td></td>
<td>High school diploma or below</td>
</tr>
<tr>
<td>Education level (female)</td>
<td>University graduate</td>
</tr>
<tr>
<td></td>
<td>High school diploma or below</td>
</tr>
</tbody>
</table>
couples moral restrictions, and religious ethical issues upon infertile such as cost, distance, lack of expertise, tourist attractions, legal and

6. Conclusion

The results in Table 2 show that some factors seem to be more important for Muslim infertile couples participating in this study in the choice of their medical treatment destination. It can be inferred from the frequencies of the responses that religious ethical issues (Table 2, statement nos. 6, 7 and 8) and legal or moral restrictions in their home country (Table 2, statement no. 4) rank among the most important factors in their choice of a destination country to receive infertility treatment services.

Lack of expertise or ART is another factor which influenced their choice. Demographic statistics in Table 1 indicate that the majority of these infertile couples are Iraqi and Afghan (82.1%) of which most do not have access to high quality medical facilities or expertise in their own countries. In addition, Afghan people preferred to travel to Iran for their treatment because most have been working in this country as social immigrant workers for a period of time.

6. Conclusion

The present study aimed to investigate the impact of factors such as cost, distance, lack of expertise, tourist attractions, legal and moral restrictions, and religious ethical issues upon infertile couples’ destination choices for treatment with ART. The research results indicated that in addition to some general factors which motivate all groups of international medical tourists (price, distance, lack of expertise, tourist attractions), there are additional important factors which specifically influence infertile couples’ destination choices for infertility treatment or require that they travel to a qualified country to receive reproductive medical services.

The findings of this study and some previous studies have suggested that legal and moral issues prevent infertile couples from receiving ART benefits in their country of residence.

This research emphasizes the importance of ART in a religiously correct fashion as a very important factor for Shia Muslims as seen in studies undertaken by Inhorn (2006).

Providing an appropriate environment where infertile couples’ religious beliefs are respected and considered during the treatment of infertility through ART will make reproductive tourism a remarkable opportunity for these minority groups who are faced with a lack of ART expertise in their country of residence.

Eventually, despite remarkable recent advances in ART, globalization of this technology will not occur unless a combination of moral, legal and religious ethical issues are carefully considered.

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Appendix. Supplementary material

Supplementary material related to this article can be found at doi:10.1016/j.tourman.2011.01.005.

References


Table 2

Level of respondents’ agreement with each statement and chi-square analysis results.

<table>
<thead>
<tr>
<th>Statement</th>
<th>SD (%)</th>
<th>MD (%)</th>
<th>N (%)</th>
<th>MA (%)</th>
<th>SA (%)</th>
<th>Chi-square</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My destination choice was affected by the distance between my home country and Iran.</td>
<td>1.5</td>
<td>7.5</td>
<td>6.0</td>
<td>29.9</td>
<td>55.1</td>
<td>68.14</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>2. My destination choice was affected by the low price of infertility treatment in Iran.</td>
<td>1.5</td>
<td>3.0</td>
<td>28.4</td>
<td>41.8</td>
<td>25.4</td>
<td>40.38</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>3. My destination choice was affected by lack of expertise or ART in my home country.</td>
<td>1.5</td>
<td>1.5</td>
<td>3.0</td>
<td>32.8</td>
<td>61.2</td>
<td>95.01</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>4. My destination choice was affected by legal or moral restrictions in my home country.</td>
<td>3.0</td>
<td>1.5</td>
<td>3.0</td>
<td>17.9</td>
<td>74.6</td>
<td>130.98</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>5. My destination choice was affected by tourist attractions of Iran.</td>
<td>1.5</td>
<td>3.0</td>
<td>40.3</td>
<td>23.9</td>
<td>31.3</td>
<td>39.79</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>6. Receiving reproductive medical services in the religiously correct fashion is important.</td>
<td>0.0</td>
<td>1.5</td>
<td>3.0</td>
<td>11.9</td>
<td>83.6</td>
<td>124.34</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>7. Implementation of ART in the religiously correct fashion in Iran is an important factor for me.</td>
<td>3.0</td>
<td>1.5</td>
<td>1.5</td>
<td>19.4</td>
<td>74.6</td>
<td>132.62</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>8. Level of agreement with traveling to a non-Muslim country to receive reproductive medical services.</td>
<td>71.6</td>
<td>22.4</td>
<td>3.0</td>
<td>1.5</td>
<td>1.5</td>
<td>122.17</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>

* Question: Please specify your level of agreement with each statement by checking the appropriate response.

a) SD – Strongly disagree, MD – Moderately disagree, N – Not agree nor disagree, MA – Moderately agree, SA – Strongly agree.

b) Sig. for chi-square test.

c) All p values are less than 0.001.
Jones, C. A., & Keith, L. G. (2006). Medical tourism and reproductive outsourcing: the
downing of a new paradigm for health care. *International Journal of Fertility and
Women’s Medicine, 51*(6), 251–255.

Matorras, R. (2005, December). Reproductive exile versus reproductive tourism

Ministry of Culture and Islamic Guidance. (2003). *Comprehensive cultural statistics:
Iran cultural sites, list of shrines and sacred places*. Tehran: National Plan,
Ministry of Culture And Islamic Guidance.


Pennings, G. (2002). Reproductive tourism as moral pluralism in motion. *Journal of
Medical Ethics, 28*, 337–341. doi:10.1136/jme.28.6.337.


Ramírez de Arellano, A. B. (2007). Patients without borders: the emergence of

Shenfield, F., de Mouzon, J., Pennings, G., Ferraretti, A. P., Nyboe Andersen, A., de
Wert, G., et al. (2010). Cross border reproductive care in six European

Regional clinical practice patterns in reproductive endocrinology: a collabora-
tive transnational pilot survey of in vitro fertilization programs in the Middle
1743-1050-4-3.

Tosun, C., & Jenkins, C. L. (1998). The evolution of tourism planning in third-
world countries: a critique. *Progress in Tourism and Hospitality Research, 4*(2),
101–114.

Turner, L. (2007). ‘First world health care at third world prices’: globalization,
bioethics and medical tourism. *Biosocieties, 2*, 303–323. doi:10.1017/
S1745855207005763.

H. K. Heggenhougen, & S. Quah (Eds.). *International encyclopedia of public health,

Jahangardan (Irangardan).