# PRIVATE HOSPITAL CHOICES OF INFERTILE PATIENTS THAT RECIEVED IVF TREATMENT: A PILOT STUDY

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**Abstract**

Reproduction and resuming the generation is one of the most important and basic instincts of all creatures. One of the biggest hurdles for the implementation of this instinct is infertility. The aim of this research is to determine the factors and the sources of information which are influential for women choosing IVF treatment in private hospitals, and to investigate the relationship between socioeconomic and demographic characteristics of the patients with these two variables. Main sample of the study is on 184 women who have received IVF treatment. Snowball sampling method was used as a sampling method. For women who have undergone IVF treatment the four most important factors that influence their choice of private hospitals, respectively; are hospital expertise in the field, the opportunity to be able to continue with the same physician during the treatment period, to be compelled and pregnancy success rates of the hospital. Four most important sources of information which are effective in applying to a hospital from the perspective of the patient, respectively; patients who had been treated in the hospital before, information offered to patients by the hospital, radio ads and a relative who works in a hospital.

**Keywords:** Infertility, IVF (In Vitro Fertilization) treatment, Hospital Choice

## Introduction

Infertility; is defined as the inability to become impregnated due to regular unprotected sexual intercourse for a year (Mosher and Pratt, 1991). Vayena and colleagues (2001) define infertility as; being unable to conceive a child respite regular intercourse for at least a year without using any method of birth control in the reproductive lifetime of a couple. Infertility as a problem; leads to important personal and family problems which targets approximately 8-10% of women in their reproductive age, and frequency causes vary from region to region(Lowdermilk et al., 1997). Infertility as a reproductive health problem has started to receive attention in the last 20 years. The World Health Organization (WHO) estimates that there are 60-80 million infertile couple in the world (Denson, 2006). In the last 10 years there have been major advances in the treatment of both female and male infertility. 8-30% of couples in their reproductive age in western world is infertile (Brannstrom etc., 2003), although there are not very clear data, this ratio is estimated 10-20% in Turkey (Yanıkkerem et al., 2008).

In health services, patients became active in the end of 1960s. Technological advancements in this era has transformed health services. Parallel to technological advances, and the rise of educational levels, patients who can criticize health services with a high level of awareness emerged. In this context, it is possible to say that patients who have received IVF treatment is also among patient groups with rising levels of awareness and consciousness. Today, more patients want to participate in their own health care and health care processes, and want to learn about their disease-related diagnoses. Especially, a highly sensitive area such as IVF treatment, patient requests come to the foreground. Therefore, the quality and success of health care services offered by hospitals and health professionals should not be seen in this context only, the final decisions of these patients are also effective.(Coban and Kasikci, 2008).

**Literature Review:** International and national literature were reviewed about the IVF treatment within the scope of the paper and the results are summarized in tables below. In the summarizing process, primarily hospital choices and sources of information of infertile patients related to IVF treatment are given with a deductive approach.

Table 1: Literature Review on Hospital Choices of Infertile Patients that Received IVF Treatment and Information Sources

| Author(s) | Year | n | Purpose | Findings |
|---|---|---|---|---|
| Lass ve Brinsden | 2011 | 175 | Determining the factors which are effective for infertile couples to choose private hospital choice | Factors: Hospital success rates in pregnancy, and the advice of a family physician/consultant. İnformation sources: the advice of friends, radio/television broadcasts, the internet and relevant articles. |
| Marcus vd. | 2005 | 120 | Determining the factors which are are effective for infertile couples to choose private hospital choice | Factors: Hospital success rates in pregnancy, and healthcare service quality. Information sources: The recommendation of the hospital's physician |
| Cai vd. | 2014 | 393 | Determining the factors which are effective to choose hospital for IVF clinicians and infertile patients in China | Factors:“physicians attitudes and behaviors towards patients”, “hospital success rates in pregnancy”, “the distance of the hospital to the patient's home”, “have the option to continue with the same physician during the treatment period”, and “type of hospital”. Factors for the clinicans: Hospital "success rates in pregnancy", “physicians attitudes and behaviors towards patients”, “the distance of the hospital to the patient's home”, “type of hospital”, and “have the option to continue with the same physician during the treatment period”. |

When the literature is examined; although there are some papers with different contents related to infertility and IVF treatment; it is remarkable that there are no studies on sources of information and the factors that influenced hospital choices of infertile patients that received IVF treatment (Table – 1). Couples who received IVF treatment because of infertility have a tendency to stop the treatment because of some reasons like the psychological burden of the treatment, unable to get conceived and the financial burden of treatment. The studies that investigate the reason of this are summarized in Table – 2.

Table-2: Literature Review on Resasons of Infertile Patients Giving Up the IVF Treatment

| Author(s) | Year | n | Purpose | Findings |
|---|---|---|---|---|
| Sourter vd. | 1998 | 806 | Researching the satisfaction of infertile patients about hospitals | Factors: physicians' positive attitudes and behaviors towards patients, informing the patients by physicians, supporting the patients about negative emotional aspects of infertility and better waiting time in hospital |
| Peddie vd. | 2005 | 25 | Determining the factors which are affective to give up IVF treatment for infertile women | The difficulties of the acceptance of infertility, stress of the treatment, unrealistic expectations about the treatment, media and society pressure, insufficient information, physical and emotional pressure between couples. |
| Rajkhowa vd. | 2006 | 1327 | | İnfertility, unsuccesful treatments, The NHS's (national health system) lack of financial support, financial status of patients, medical and non-medical staff recommendations, psychological stress, restlessness, divorce, moving, and the death of one of the couples |
| Brandles vd. | 2009 | 1391 | | Emotional stress factors, the inability to predict the outcome of the disease, and refusal of treatment by patients |
| McDowell ve Murra | 2011 | 1012 | | İnfertility, not choosing advanced treatments because of the possibility of miscarriage, cost, restlessness, stress, age, dissatisfaction about hospital and recommendation of phsycian to give up the treatment |
| Gameiro vd. | 2012 | …. | | The physical and psychological burden of treatment, pregnancy success rates in the hospital, divorce, the loss of hope and the refusal of treatment, the death of a couple or a member in the family, hospital distance, adoption, giving up having children, postponement of treatment, the body mass index of the patient,, narrow comprehensive private health insurance, other health problems, choosing an another hospital, and alternative therapies |
| Pedro vd. | 2013 | 348 | Researching the relationship between patient-centered treatment and general infertility treatment | Factors: The presentation of the quality of health services in infertility treatment, negative treatment experiences. |

Elimination the causes of giving up the treatment is important especially in increasing the eligibility of hospitals with IVF centers. As a

result, attempts to prevent such negative experiences of patients can make positive contribution to the hospital choices of patients and therefore patients who are satisfied with the services they received in the hospital, will recommend the hospital to other patients (Table - 2).

There are limited studies on factors that influence prenatal clinic choice for other patient groups and patients that received IVF treatment especially pregnant women. Current studies are summarized in Table – 3.

Table 3: Literature Review on Factors That Affect Hospital Choices of Pregnant Women

| Author(s) | Year | n | Purpose | Findings |
|---|---|---|---|---|
| Phibbs et. al | 1993 | 61436 | Determining the factors which are affected by low and high-risk pregnant women's hospital choice | Factors: Quality, price, hospital type, and hospitals' location,<br><br>High-risk women group for pregnancy, prefer better the hospitals compared to women who have a lower risk in terms of quality, and they are willing to travel further to reach that hospitals. |
| Empel et al. | 2011 | 1152 | Determining and comparing the importance of being patient-centred in pregnancy for patients and physicians | Being patient-centered in pregnancy is more important for patients than physicians. |
| Karkae et al. | 2013 | 258 | Determining the factors that are effective to not choose the birth centers in Nepal | Factors: Unopportunity of surgery, lack of medical infastructure, inexperienced medical personnel. |

Although there are not many studies on hospital choices of infertile patients that received IVF treatment, there are many studies on factors that affect hospital choices of patients for general health services. These are summarized in Table -4.

Table 4: Literature Review on Factors That Affect Hospital Choices of Patients For general Health Services

| Author(s) | Year | n | Purpose | Findings |
|---|---|---|---|---|
| Angus et.al | 1996 | …. | Determining the factors which are effective in choosing gynecology clinics | Reasons for the preference: better waiting time, hospital's proficiency&reputation, concerning the patients, health services presentation rates, loyalty to the hospital Sources of information: Clinical history of referred patients, personel information of clinicans, W.O.M, hospital's promotional products. |
| Bós and Bós | 2004 | 7920 | Analysing the impact of individual and family income on the hospital choices of the adults. | It was found that family income to access to private hospitals, has more importance than individual income, and there is a relationship between family income and private hospital choice approximately %20 percentage. In addition, it is revealed that hospital choice of adults depends on the financial resources of family not on individual resources. |
| Tai et al | 2004 | 1702 | Examining socio-economic/demographic variables that affect patients hospital choice. | Factors: marital status, income, education ( also found that female patients prefers close hospitals on the other hand this choice changes according to income&education) |
| Ho | 2006 | 434 | Investigating the relationship between hospital type and the severity of the disease | The severity of the disease varies hospital choice. Also, cancer patients' most significant criteria is the number of nurses per bed. |
| Leister and Strausberg | 2007 | 151 | Determining the factors that affect hospital choice | While the patient experience and physicians' references about hospitals are effective to choose hospitals, distance of the hospital is uneffective |
| Cruppé and Geraedts | 2011 | 48 | Determining the factors that affect hospital choice | Factors: receiving health care services from the hospital before, the distance hospital to the patient's home, and hospital's proficiency The most important source of information is relatives. |

| | | | | |
|---|---|---|---|---|
| Ringard and Hagen | 2011 | 1596 | Investigate the relationship between increased geographical mobility opportunity-patients' choices and waiting times in hospitals | Patients who have not choosen the hospitals in their region, are waiting less than 11week compared to other patients. |
| Birk and Henriksen | 2012 | 240 | Examining the factors that are effective on Danish family physicians hospital choices on behalf of their patients | Factors; the distance to the hospital, family physicians as a serious reference source and family physicians with the excellent cooperation between departments. Information sources; reviews of other family physicians about the department and other patients. |
| Jannati et.al | 2013 | 376 | Determining the factors that affect the decisions of patients' public and private hospital choices in Tabriz and Iran | Factors; possibility of delivery to the hospital by ambulance, the physician's advice, the family's income, type of health insurance, the hospital's service quality, the treatment costs, and informed by physicians. |
| Loh et .al | 2015 | 28 | Determining the place of the best care for cancer patients in the terminal stage | Above %88 of samples noted that home is the best place for terminal term care. |

In Turkey, there aren't many studies which is directly relevant to this topic. Additionally, there are limited studies related to the factors that affect general hospital choices and sources of information. Current studies are summarized in Table – 5.

Table-5: Results on National Review on Factors That Affect Hospital Choices of Patients For General Health Services

| Author(s) | Year | n | Purpose | Findings |
|---|---|---|---|---|
| Tengilimoğlu | 2001 | 869 | Determining the factors which are effective hospital choice | Factors; hospital distance, the hospital's modern equipment and physical conditions, the prestige of the hospital, the cost of treatment, social security status, bureaucratic processes, and the presence of any kind of health services and the professional. |
| Akıncı et.al. | 2004 | 869 | Determining the factors which are effective hospital choice | Factors; hospital distance, hospital image, the hospital's physical appearance, and infrastructure and technology |

| | | | | |
|---|---|---|---|---|
| Ayhan&Canöz | 2006 | 235 | Examining public relations activities affectting hospital choices | Factors: hospital image, insurance agreement between the institution of the hospital, the recommendation of a friend, hospital distance, the cost of treatment, providing appropriate health care services for people of different religious beliefs. |
| Adaman et.al | 2009 | 370 | Investigating social networks that affect hospital choice | High-level social networks (close interpersonal relationships) of households can use these networks to access to the hospital. |
| Tengilimoğlu et.al. | 2008 | 971 | Examining public relations activities affectting hospital choices | It is found that most important PR activity is attitudes and behaviors of health professionals towards their patients in the hospital. |
| Kılınç | 2009 | 550 | Determining the socioeconomic and demographic factors which are effective hospital choice | It is determined that no statistically significant difference between patients to prefer public or private hospitals and the status of being previously received health care services from the same hospital and waiting times in the hospital. |
| Özdemir et.al. | 2010 | 569 | Examining which demographic variables related to patients hospital choices after the social security reform | Significant factors: hospital type, social security type, age, marital status, education and income. Not significant factors: gender and employement status |
| Taşlıyan and Gök | 2012 | 306 | Examininig the factors affecting patient satisfaction | Past experience and quality of health service are the most important factors. |
| Özkoç | 2013 | 6938 | Determining the socioeconomic and demographic factors which are effective hospital choice | Most preferred hospital types: state hospitals, family health centers, private hospitals, university hospitals, private practice, polyclinic doctors Factors:gender, income levels, settlements, employment status and hospital types |
| Öztürk | 2014 | 300 | Examining the reasons of the choice of the hospital and perceived health service quality | If the perceived health quality is higher than expected service quality; patients prefer the same hospital again. In addition, both ambulatory and hospitalized patients prefer being treated in university hospitals with the hope of a better treatment. |

**Aim of the Research**: The aim of this study is to determine the factors and information sources which affect private hospitals choices of infertile patients who receive IVF treatment and to analyse the relationship between these two variables, socio-economic and demographic variables.

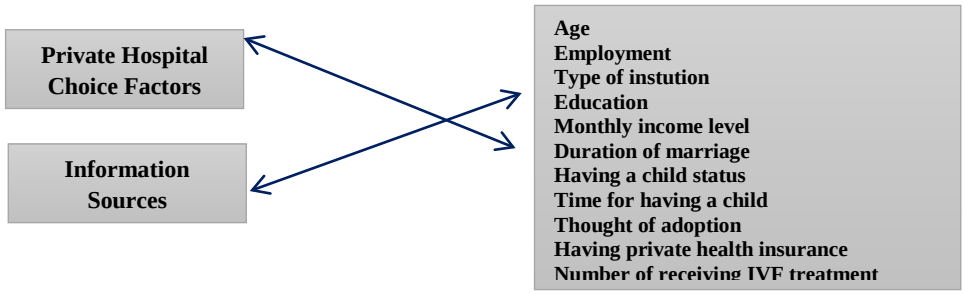
**Research Method**: Due to impossibility to reach clear number of patients having a child or not after IVF treatment of private hospitals in Turkey and incomprehensive sampling frame that includes not enough individuals, non-probability sampling techniques (Gegez, 2014, 217-218) such as convenience and snow ball methods were used together. Tavşancıl(2002), Gözüm and Aksayan (2003) proposed that sample size has to be 5 or 10 times greater than scales item total. Therefore, in this study, due to the fact that on the scale has 35 questions, it was aimed to reach at least 175 patients that is 5 times of the items on the scales, and 184 patients was reached in total. In the scope of the study, a questionnaire method was conducted as data collection. Scale items was created by the researchers after literature review and having expert opinions (linguistic and marketing experts). In addition, final questionnaries were revised by a pilot study.

It was thought that phsycian's reputation could be an important factor of hospital choice for some patients and seven in-depth interviews were analyzed. It was found that two patients among seven interviews choose not only hospital but also phsycian. These results showed that it is not neccessary to include any spesific questions into the scales about phsycians.

Analysis of data, which collected between the dates of June 5th, 2015-15th May 2015, are reviewed as basic statistical methods such as frequency, percentage, average and correlation analysis by using SPSS 20.0. Cronbach's Alpha coefficients have been calculated respectively; 0,780 (20 Variables) for hospital choice factors and 0,691 (15 Variables) for information sources. The scale has been considered reliable because the value of Cronbach's Alpha reliability coefficient is more than 0.70.

The survey consists of three parts. In the first section; 20 statements to determine the factors affecting participants' private hospital choice, in the second section 15 statements including information sources, and in the last section 11 socio-demographic questions are involved. In the first section likert type scale was used ( 1 is strongly disagree and 5 is strongly agree). In the second section, a five point interval scale used in the form 1 (Unimportant), 3 (Neutral), and 5 (Very Important).

Figure 1: Research Model




**Limitations:** In the study, due to impossibility to reach clear number of patients receiving IVF treatment in Turkey, selected sample techniques constitute one of the most important limitations. An another important limitation is that patients can be reluctant to receive this treatment because of avoiding to be perceived as infertile in the community and so this subject is accepted that has the high level of intimacy for couples. In addition this subject's psychological sensitiveness for families and infertile couples caused some problems to reach the patients receiving this treatment and data collection.

**Findings:** Socioeconomic and demographic characteristics of the participants are summarized in Table 6 via frequencies and percentages.

Table-6: Socioeconomics and Demographics Characteristics of Participants

| **Age** | **f** | **%** | **Education** | **f** | **%** |
|---|---|---|---|---|---|
| 24-28 | 33 | 17,9 | Primary school | 26 | 14,1 |
| 29-33 | 55 | 29,9 | Middle school | 17 | 9,2 |
| 34-39 | 54 | 29,3 | High school | 35 | 19 |
| 40 and above | 42 | 22,8 | Associate Degree | 30 | 16,3 |
| **Employment** | **f** | **%** | Undergraduate | 42 | 22,8 |
| Employed | 136 | 73,9 | Graduate | 23 | 12,5 |
| Unemployed | 48 | 26,1 | Ph.D | 11 | 6 |
| **Type of Instution** | **f** | **%** | **Monthly income level (TL)** | **f** | **%** |
| Public | 67 | 36,4 | 0-1.000 | 50 | 27,2 |
| Private | 45 | 24,5 | 1.001-2.000 | 32 | 17,4 |
| Self employment | 26 | 14,1 | 2.001-3.000 | 52 | 28,3 |
| Other | 46 | 25 | 3.001 and above | 50 | 27,2 |
| **Duration of Marriage** | **f** | **%** | **Time for having a child** | **f** | **%** |
| 1-5 Years | 62 | 33,7 | 1-4 Years | 88 | 47,8 |
| 6-9 Years | 64 | 34,8 | 5-9 Years | 66 | 35,9 |
| 10 Years and above | 58 | 31,5 | 10 Years and above | 30 | 16,3 |
| **Having a child** | **f** | **%** | **Thought of adoption** | **f** | **%** |
| Yes | 119 | 64,7 | Yes | 23 | 12,5 |
| No | 65 | 35,3 | No | 161 | 87,5 |
| **Private Health Insurance** | **f** | **%** | **Number of receiving IVF treatment** | **f** | **%** |
| Yes | 45 | 24,5 | 1 time | 62 | 33,7 |
| No | 139 | 75,5 | 2 times | 59 | 32,1 |
| | | | 3 times and above | 63 | 34,2 |
| **Total: 184** | | | | | |

When the findings from frequency analysis related to the socieconomic and demographic characteristics are examined, it is revealed that 55 participants(%29,9) of the survey are in the range of 29-33 age group, and the average age of all participants is 35,55±6,239. While 136(%73,9) of participants are actively working, 67 (%36,4) of them are working in the public sector. When the education level of participants is examined, it is observed that the majority of participants 42 of them(%22,8) are at the undergraduate level. While 52 (%28,3) of participants have between 2001-3000 TL monthly average income, the average monthly income of all is 2.440. 62 (%33,7) of participants have the time of marriage between 1-5 years, 119 (%64,7) of them have at least one child. When spending time to have a child is examined, it is found that the highest number is 88 individuals(%47,8) between 1-4 years. 161 of participants(%87,5) do not think adopting a child. 139 of them(%75,5) don't have any private health insurance. Examined the numbers of IVF treatment, it is revealed that 63 (%34,2) individuals received at least 3 times. (as seen at Table 6)

Table-7: Means of Hospital Choice Factors

| **Factors that Affect Hospital Choice** | **$\bar{X}$** | **ss** |
|---|---|---|
| Profiency of hospital | 4,67 | 0,697 |
| Having the same physician during the treatment period | 4,58 | 0,656 |
| Compulsion | 4,53 | 0,880 |
| Pregnancy success rates of the hospital/clinic | 4,48 | 0,843 |
| Service quality of hospital/clinic | 4,48 | 0,652 |
| Ability to reach physicians at any moment | 4,43 | 0,793 |
| Physicians' positive attitudes towards patients | 4,10 | 0,740 |
| Having modern equipments | 4,07 | 0,773 |
| Physicians ' communication skills | 4,07 | 0,790 |
| Having physical modern conditions of the hospital/clinic | 3,96 | 0,812 |
| The hospital/clinic's reputation in the community | 3,79 | 1,058 |
| Minimum of waiting time in the hospital/clinic | 3,74 | 1,265 |
| The advice of a close friend | 3,46 | 1,317 |
| Low cost of treatment | 3,43 | 1,462 |
| Distance to home | 3,21 | 1,434 |
| The advice of a relative | 3,09 | 1,598 |
| Distance to workplace | 2,95 | 1,541 |
| Treatment experience | 2,08 | 1,394 |
| Having private health insurance | 2,01 | 1,491 |
| The advice of family physicians | 1,78 | 1,091 |
| **Average of Hospital Choice Factors** | **3,64** | **1,064** |

When the table belong to the average of scale affecting the reasons of hospital choice is examined(Table 7); the highest average expression is "profiency of the hospital" with 4,67 average, the second one is "having the same physician during the treatment period" with 4,58, the third one is "compulsion" with 4,53 average, the fourth highest one is "pregnancy

success rates of the hospital" with 4,48. The lowest average expression is "the advice of family physicians" with 1,78. (Table 7)

Tablo-8: Means of Information Sources

| Information Sources | $\bar{X}$ | ss |
|---|---|---|
| Information from experienced patients | 4,74 | 0,898 |
| Information from hosptial/clinic | 4,44 | 1,075 |
| Radio ads | 4,33 | 1,243 |
| A relative who works in the hospital/clinic | 4,10 | 1,546 |
| Close friends | 3,80 | 1,672 |
| TV ads | 3,63 | 1,709 |
| Relatives | 2,96 | 1,875 |
| Internet ads | 2,85 | 1,806 |
| Facebook-social media ads | 2,38 | 1,588 |
| Close friends who work in the hospital/clinic | 2,32 | 1,780 |
| Billboard ads | 1,90 | 1,268 |
| Magazine ads | 1,89 | 1,367 |
| Family physicians | 1,54 | 1,205 |
| Newspapers | 1,37 | 0,932 |
| Twitter-social media ads | 1,34 | 1,807 |
| **Average of Information Sources** | **2,90** | **1,451** |

When the table belong to the average of scale of information sources related to hospital is examined(Table 8), it is found that the highest average expression is "information from experienced patients" with 4,74 average, second one is "information from hospitals" with 4,44; the third one is "radio ads" with 4,33 average, the fourth is "a relative working in the hospital" with 4,10 average. The lowest average item is "Twitter-social media ads" with 1,34 average.

Table-9: The Correlation Between Hospital Choice Factors and Information Sources Means And Socioeconomic And Demographic Data

| | Hospital choice mean | | Information source mean | |
|---|---|---|---|---|
| | **Pearson Correlation** | **Sig. (2-tailed)** | **Pearson Correlation** | **Sig. (2-tailed)** |
| **Age** | ,066 | **,372** | ,016 | **,824** |
| **Duration** | -,208** | ,005 | -,231** | ,002 |
| **Monthly income level** | ,563** | ,000 | ,567** | ,000 |
| **Number of receiving IVF treatment** | -,154* | ,037 | -,138 | **,063** |
| | **Kendall Correlation** | **Sig. (2-tailed)** | **Kendall Correlation** | **Sig. (2-tailed)** |
| **Education** | ,462** | ,000 | ,453** | ,000 |
| **Employment** | -,394** | ,000 | -,417** | ,000 |
| **Having a child** | -,210** | ,001 | -,108 | **,083** |
| **Time for having a child** | -,169** | ,004 | -,158** | ,008 |
| **Thought of adoption** | ,157* | ,010 | ,056 | **,365** |
| **Private Health Insurance** | -,373** | ,000 | -,215** | ,001 |

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

According to the Pearson Correlation Analysis results, there is a negative relationship between duration of marriage and hospital choice &information sources. When it is considered the psychological and physical burdens of IVF treatment on infertile patients, it can be said that patients can reject the treatment because of unhopelessness in the marraige period or similar reasons. Hence, while the duration of marriage increases, the worthiness of regarding access to information resources and hospital choice factors decreases.

Statistically significant positive relationship was detected between monthly income level and averages of reasons of hospital choice &information sources related to hospital. Accordingly, while income levels of patients increases, possibility of access to information resources increases and hospital choice criteria diverses. Statistically significant negative relationship was detected between the number of receiving IVF treatment and averages of hospital choice. In this sense, while the number of receiving IVF treatment increases, hospital choice criteria decreases. When it was considered burden of IVF treatment on infertile patients; it can be said that each new treatment increases the level of desperation of patients and because of that patients don't search another new hospital. Statistically significant relationship wasn't detected between number of receiving IVF treatment and average of information sources.

As a result of Kendall correlation analysis; statistically significant positive relationship was detected between education level and averages of hospital choice &information sources. In this case, while education levels of patients increases, possibility of access to information resources and hospital choice criteria increase. So, it can be said that patients with high levels of education have high level of awareness for this type of abrasive treatment. Statistically significant negative relationship was detected between employment status and averages of reasons of hospital choice &information sources. Accordingly, it can be said that working patients cannot allocate enough time for issues of access to information resources and hospital choice because of the intensity of work or similar reasons.

Statistically significant negative relationship was detected between "having a child status" and averages of hospital choice criteria. In this sense, patients having a child after IVF treatment, spend less time for activities related to hospital choice. And this will create hospital loyalty, if these patients want to have a second child, they choose to go the same hospital. There is no statistically significant relationship between "having a child status" and averages of information sources. As found in the duration of marriage, statistically significant negative relationship was detected between "time for having a child" and averages of hospital choice& information

sources. In this sense, increasing of spending time to have a child decreases hospital choice criteria and activities to access to information resources.

Statistically significant negative relationship was detected between "adopting status" and averages of hospital choice criteria. Normally, thought of adopting a child occurs when infertile patients despond from treatment. In contrast in this study, the patients also think adoption in the beginning of the treatment. Statistically significant negative relationship was detected between having private health insurance and averages of hospital choice criterias &information sources. Considering that having a child is a sensitive and important subject for specially infertile patients receiving IVF treatment, it can be said that having a private health insurance does not play an important role neither hospital choice criteria nor information sources. Thereby, patients don't give up from their ultimate goal, even they don't have a private health insurance covering the costs of treatment. Briefly, the lack of private health insurance is not seen as an obstacle to have a child.

**Discussion-conclusion&suggestions:**

The factors that affect infertile women's hospital choice who received IVF treatment, information sources about the hospital and the relationship between these two variables are investigated in this paper. The five most important factors in the selection of patients respectively are; "hospital expertise in the field of the treatment", "to continue with the same physician during the treatment period", "obligation", "pregnancy success rates of the hospital/clinic", and "service quality of hospital/clinic". The five most important information sources that affect the selection of patients respectively are; "patients who had been treated in the hospital/clinic before", "information offered by the hospital/clinic", "radio ads", "a relative who works in the hospital/clinic", and "close friends". As a result of correlation analysis; statistically significant relationship wasn't detected between age groups and averages of reasons of hospital choice-information sources. Statistically significant negative relationship was detected between "duration of marriage", "numbers of IVF treatment received", "employment status", "time spent to impregnated", "having private health insurance" and averages of hospital choice-information sources. Statistically significant positive relationship was detected between "monthly income level", "education level" and averages of hospital choice-information sources. There is a negative relationship between between "having a child", "thinking of adoption " and averages hospital choice, but there isn't statistically significant relationship between "having a child" , "thinking of adoption" and averages of information sources.

According to the findings of this paper, similar conclusions with the literature have been achieved at some point, and different to the literature at

other points. For instance; it has been identified that “hospital success rates in pregnancy” is the most important factor that shapes the preferences of patients in Lass and Brinsden’s (2001) article whereas in this study" hospital expertise in the field of treatment " replaced it. “Hospital success rates in pregnancy” is the fourth most important factor that shapes the preferences of patients. According to Lass and Brinsden’s article (2001), the distribution of patients information sources about hospital is 26 % a friend's recommendation, 9% radio/television broadcasts, 5% internet and 3% articles on the subject; whereas in this paper radio ads is in the third place, the orientation of a close friend is in the fifth, television commercials are in the sixth, and the internet ads are in the eighth place. In Marcus and colleagues (2005)’s study performed on infertile patients that received IVF treatment, the two most important factors that influence couples hospital choice respectively are; hospital success rates in pregnancy and service quality of hospital. In this paper, the two most important factors respectively are; “hospital expertise in the field of treatment “having the option to continue with the same physician during the treatment period”. In Cai and colleagues (2014)’s article, the five most important factors that influence patients hospital choice respectively are; “physicians attitudes and behaviors towards patients”, “hospital success rates in pregnancy”, “the distance of the hospital to the patient's area of residence, “having the option to continue with the same physician during the treatment period”, and “ hospital ”. In this study, parallel results were found to the results of Cai and his colleagues. In terms of the findings, the most important difference of this study from Lass and Brinsden’s, Marcus and his friends and Cai and his colleagues is the result that patients are obliged to choose a hospital because they are forced. As seen in Table 7 “Obligation”, is one of the factors that affect patients hospital choice, is at the top of the rankings.

In Angus and colleagues (1996)’s article, the most important information sources for patients respectively are; “clinical consequences of patients who have been previously referenced the to physicians”, “personal information of physicians and word of mouth marketing” and “hospitals’ promotional products”. It can be argued that there are different results in this paper when compared to Angus and colleagues’ article and that is family physicians is the less important information source in this paper. Birk and Henriksen (2012)’s article shows that, the most important information source for patients are family physicians reviews on patients about hospitals. In this paper, family physicians is the less important information source. Quality of healthcare services in IVF treatment can affect intentions of patients adherence to treatment according to Pedro and colleagues (2013)’s article. Similarly, service quality is the fourth most important factor that guides patients in the hospital choice according to the findings of this paper.

According to Leister and Strausberg (2007)'s article, patient experience is important for hospital choice and patients choose hospitals referenced by physicians in particular. The distance of the hospital to the patient's area of residence and/or the workplace is less important selection criteria.

As an overall evaluation; there is no research about the factors and information sources that guides hospital choice of infertile patients order to receive IVF treatment in Turkey. There are only a few research about this subject in international literature, too. Infertility as a disease that has a momentum on the increase day by day in the world and it is a traumatic event affecting not only women, but also their husbands and family members to the extreme. On the other hand, another important issue is that healthcare institutions need to know their patients response in increasing health care demands. So health care managers and/or marketers ability to use the instruments as an information source is important. Considering the information sources that are obtained at the end of the study, the first place is taken by patients as an information source who have obtained health service from the hospital before. A Good health manager/marketer need to know that the only way to ensure the sustainability of the health care institutions is patient satisfaction. It is possible to increase the hospital's eligibility, especially through word of mouth marketing. Another instrument according to the findings of the study; is information offered to patients by the clinic. If patients are informed about the process it is possible to create loyal patients. If it is assumed that all loyal patient references at least one patient, grasping the significance of the event would be a little easier. Examples of good practice will make easier to reach the ultimate goals for the patients and their relatives as well as health service providers.

In conclusion, the ultimate goal of patients and their relatives is having a healthy baby, and the ultimate goal of health service providers is to increase the loyal patient portfolio and market share in the industry. It may be recommended that researchers can make new research on other reproductive methods except IVF treatment similar to this research with larger sample volumes in the future.

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