
2-10-2014

Empowerment and Sense of Adequacy in Infertile Couples: A Fundamental Need in Treatment Process of Infertility - A Qualitative Study

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Recommended APA Citation

Zargham-Boroujeni, A., Jafarzadeh-Kenarsari, F., Ghahiri, A., & Habibi, M. (2014). Empowerment and Sense of Adequacy in Infertile Couples: A Fundamental Need in Treatment Process of Infertility - A Qualitative Study. *The Qualitative Report*, 19(6), 1-14. <https://doi.org/10.46743/2160-3715/2014.1274>

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Abstract

Many Iranian couples are suffering from infertility, and their needs have remained unexplored thus far; therefore, the purpose of this study was to explore the infertile couples' needs and experiences during diagnosis and different stages of infertility treatment. Specific research question included: What are infertile couples' viewpoints and perceptions about their needs in treatment process of infertility? Researchers used a qualitative design, based on a content analysis approach to analyze in-depth unstructured interviews conducted with seventeen infertile couples. The participants' needs were categorized into five categories. All five categories had one theme in common which was identified as "empowerment and sense of adequacy" as a fundamental need during diagnosis and treatment processes of infertility. The study findings showed that the under-studied fertility care centers were not patient-centered; and patients' needs were not recognised appropriately. Perhaps, addressing patients' needs and expectations is the first step toward more paying attention to infertile couples and empowering them.

Keywords

Empowerment, Experiences, Infertility, Needs, Qualitative Research

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Acknowledgements

This study is one part of second author's PhD Thesis on Reproductive Health which was approved at Isfahan University of Medical Sciences. Thus, researchers of this study wish to express their gratefulness to all authorities for their financial support for this study. We thank all infertile couples and professionals from the public and private infertility treatment centers for their participation and cooperation in the data gathering.

Empowerment and Sense of Adequacy in Infertile Couples: A Fundamental Need in Treatment Process of Infertility - A Qualitative Study

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Many Iranian couples are suffering from infertility, and their needs have remained unexplored thus far; therefore, the purpose of this study was to explore the infertile couples' needs and experiences during diagnosis and different stages of infertility treatment. Specific research question included: What are infertile couples' viewpoints and perceptions about their needs in treatment process of infertility? Researchers used a qualitative design, based on a content analysis approach to analyze in-depth unstructured interviews conducted with seventeen infertile couples. The participants' needs were categorized into five categories. All five categories had one theme in common which was identified as "empowerment and sense of adequacy" as a fundamental need during diagnosis and treatment processes of infertility. The study findings showed that the under-studied fertility care centers were not patient-centered; and patients' needs were not recognised appropriately. Perhaps, addressing patients' needs and expectations is the first step toward more paying attention to infertile couples and empowering them. Keywords: Empowerment, Experiences, Infertility, Needs, Qualitative Research

About 80 million people around the world suffer from infertility (Van Empel, et al., 2010). Infertility rate differs from country to country (Behboodi-Moghadam, Salsali, Eftekhari-Ardabili, Vaismoradi, & Ramezanzadeh, 2012), being lower in developed countries and higher in developing countries due to limitations in diagnostic and treatment equipment (Kamel, 2010). Prevalence of primary infertility has been reported as 24.9 % in Iran in 2004. In addition, almost a quarter of Iranian couples experience primary infertility (Vahidi, Ardalan, & Mohammad, 2009). Infertility is diagnosed in couples when the wife does not get pregnant after one year of sexual intercourse without using contraceptive methods; this period is six months for women older than 35 years (Martins, Peterson, Almeida, & Costa, 2011; Stark, Keathley, & Nelson, 2011). Infertility is a bio-psycho-social phenomenon; that is, it impacts intrapersonal and interpersonal aspects which interact with one another and can enhance or undermine a person's health (Ramazanzadeh, Noorbala, Abedinia, Rahimi-Forooshani, & Naghizadeh, 2011).

Technological and scientific advancements as well as novel methods of infertility treatment have brought fresh hope to infertile couples, but have imposed great stress and longer periods of treatment (Latifnejad Roudsari, Rasoulzadeh-Bidgoli, Mousavifar, & Modarres-Gharavi, 2011). Infertile couples often consider their infertility period as the most stressful event of their life and have often defined the prolong treatment periods as repetitive

crisis periods (Molaeinejad, Jafarpour, Jahanfar, & Jamshidi, 2001). Assisted Reproductive Technologies (ARTs) have been regarded as one of the most stressful infertility treatment methods. The application of these techniques brings about much emotional and physical burden, depression, anxiety and stress which ultimately leads to more distrust as well as dropout of patients in these treatment programs (Dancet et al., 2011; Hammerli, Znoj, & Berger, 2010; Van Empel et al., 2010). Two factors, namely the psychological burden (72%) and lack of medical staff's empathy (32%), play a great role in patients' dropout from treatment programs. This indicates that lack of patient-centered cares can lead to patients' dropout due to non-medical reasons. This signifies the fact that reproductive medicine must address the other aspects of quality of care alongside their effectiveness (i.e., increasing the pregnancy chance). The patient-centeredness aspect of the treatment is almost forgotten in the treatment programs. To provide high quality and patient-centered fertility cares, the treatment team need to know more about patients and their understanding of their needs during treatment of infertility (Dancet et al., 2011). Provision of care conforming to infertile couples' needs and expectations turns the treatment cycles into a more pleasant experience, reduces emotional stress and may even increase the success rate of the treatment (Brandes et al., 2009).

Based on available evidence, physical treatments of infertility are often not enough, and it is believed that infertile couples have various emotional, spiritual, and psychological needs in addition to medicine and usual treatments (Daniluk, 2001; Hamdieh, Alizadegan, & Nikzad, 2009; Khodakarami, Seddigh, Hashemi, Hamdieh, & Taheri-Panah, 2009; Pakgohar, Vijeh, Babaei, Ramezanzadeh, & Abedinia, 2008; Schmidt, 1998; Van Empel et al., 2010). To this end, healthcare providers must be proactive in regard with identification of infertile couples' needs during treatment (Paterno, 2008). Identification of needs prior to selection of the solutions can increase the efficacy and effectiveness of programs in the healthcare system (Yarmohamadian, Bahrami, & Ferooghi-Abri, 2003). Therefore, special attention must be paid to planning and re-organization of diagnosis and treatment processes in infertility treatment clinics and centers, the relationship between patients and medical staff as well as infertile couples' emotional needs so as to improve the efficacy and quality of care (Sundby, Olsen, & Schei, 1994).

Study Purpose

Considering the fact that many Iranian couples are suffering from infertility, and the fact that these couples' needs have remained unexplored thus far, the researchers attempted to explore, through this study, the infertile couples' experiences during diagnosis and treatment of infertility. The obtained results can lead to a better understanding of patients' preferences and needs. Specific research question included: What are infertile couples' viewpoints and perceptions about their needs in treatment process of infertility?

Role of the Researcher

Four researchers were involved in this study. The research group consisted of F. Jafarzadeh-Kenarsari, a PhD candidate in Reproductive Health at Isfahan University of Medical Sciences in Isfahan, Iran, and this study is a part of her dissertation project; two thesis supervisors (A. Zargham-Boroujeni and A. Ghahiri) and one thesis advisor (M. Habibi), who oversaw the entire research process and guided the progress of the study.

A. Zargham-Boroujeni is an Assistant Professor in Nursing and Midwifery Care Research Center in the Faculty of Nursing and Midwifery at Isfahan University of Medical Sciences, Isfahan, Iran. His areas of research include care in crisis and qualitative inquiry. A.

Ghahiri, a Gynecologist, is an Associate Professor in Department of Obstetrics & Gynecology in the School of Medicine at Isfahan University of Medical Sciences, Isfahan, Iran. His areas of research include reproductive endocrinology and infertility. M. Habibi is an Assistant Professor and a Health Psychologist in Family Research Institute, at Shahid-Beheshti University G. C., Tehran, Iran. His areas of research include drug abuse prevention, client-centered care, and health-related behavior problems of children and adolescents.

Methods

Study Design

A qualitative design, based on a conventional content analysis approach, was used to attain the objective of the study. Qualitative researches provide an exceptional opportunity to researchers to better understand various phenomena (Straubert & Carpenter, 2010), and then explore and explain life experiences, interpretations, human mentalities that occur in the same cultural and social context (Munhall, 2007; Straubert & Carpenter, 2010). Also, qualitative methodologies have been employed for learning about infertility complex experiences (Dyer, Abrahams, Hoffman, & Van der spuy, 2002). Content analysis is a flexible method that has been employed broadly in health studies for analysis of text data (Hsieh & Shannon, 2005). Content analysis is considered as an important method in nursing researches for studying phenomena, especially sensitive topics, which seem to require qualitative research methods for their evaluation (Elo & Kyngas, 2008). In the conventional content analysis method, categories are not predesigned but extracted from data and named afterwards (Hsieh & Shannon, 2005).

Participants

Considering the qualitative nature of the study and with participants' consent, real and natural places such as a public infertility center in a training hospital, two private offices of infertility specialists and a private center of infertility treatment in two cities of Isfahan and Rasht, Iran, where infertile couples were available, were chosen as the research setting. Considering the fact that study population is not considered in qualitative studies (Polit & Beck, 2012), there was no limitation with regard to data gathering locations for the present study. Participants included 17 infertile couples (17 women, $M_{age} = 31$ years, age range: 21-43 years, 17 men, $M_{age} = 36$ years, age range: 25-47). They were sampled purposively and with maximal variation regarding causes of infertility, type of infertility (primary or secondary), age, phase of treatment and duration of infertility. Purposive sampling means that the researchers attempt to select participants who have experienced the phenomenon under investigation (Polit & Beck, 2012). Meanwhile, the participants were from Iranian infertile couples who had the tendency and met the eligibility criteria for entering the study. The eligibility criteria included the following: at least one year lapse from marriage, confirmation of their infertility, no history of mental disorders or physical disabilities, the ability to speak in Persian and express their feelings, experiences, expectations and needs. Participants were interviewed in one or two sessions lasting from 20 to 60 minutes.

Data Gathering

Data gathering methods employed in this study included in-depth unstructured open interviews and field notes. In-depth unstructured open interviews are appropriate for qualitative studies as they are flexible and deep (Straubert & Carpenter, 2010). The general

question of the research posed to the participants was, “Tell me about your infertility treatment experiences.” Explorative questions such as “Can you mention some more examples? What does that mean?” were asked for expansion of findings. Other personal questions about age, gender, education, causes and duration of infertility, number of children, type of received treatments etc, were also asked in addition to infertility treatment related questions.

Researchers also used field note-taking for data gathering; to this end, the second author attended the infertility treatment clinics and infertility specialists’ offices to observe the interaction between patients and medical personnel. Interviews and field note-takings were continued up to data saturation. In qualitative studies, data saturation is part of guiding principles of data gathering. According to this principle, the process of data gathering continues to the point no other new data is obtained and redundancy is occurred. The key point is producing adequate in-depth data so the under-study phenomenon can be explained (Polit & Beck, 2012). The interviews were implemented in Persian by the second author and then translated into English. The fourth author, as a bilingual translator, checked and confirmed this process. All interviews were recorded by a digital recorder, then they were carefully listened and transcribed verbatim, and finally the researchers analyzed them concurrently.

Data Analysis

According to the proposed approach by Graneheim and Landman (2004), the following steps were taken to analyze the collected data:

1. Transcribing all interviews immediately after each interview;
2. Reading the transcription for general comprehension of the content;
3. Determining the number of meaning units and primary codes;
4. Categorization of similar primary codes in more comprehensive categories;
5. Determining latent content (themes) in the data (text).

Trustworthiness

To increase the trustworthiness of the data some factors were taken into account. First, in terms of credibility, getting feed back from participants (member checking) and increasing the number of interviews with some participants according to necessity were conducted. Second, to enhance the transferability, participants who have had various experiences in the intended area and with maximal variation were selected. Maximum variation sampling is one of the most widely employed purposive sampling methods. In this method, individuals or settings are selected purposefully and with a wide range of variations with regard to the under-study subject. Researchers can attain richer data and a better understanding by selecting participants with various viewpoints and perceptions (Polit & Beck, 2012). Third, in regard with dependability and confirmability, peer checking, peer debriefing, member checking, and prolonged engagement of all researchers in the phenomenon under-study were performed. Prolong engagement was done in order to capture in-depth and rich data. Also, peer debriefing for codes matching, ensuring codes, subcategories, and categories match with participants’ statements was conducted.

Ethical Considerations

This study is one part of the second author's PhD thesis. The Ethics Committee of Isfahan University of Medical Sciences approved the study proposal and confirmed its ethical considerations. Prior to interviews, participants were made aware of the objectives of the research, and their full informed consent was obtained. Oral and written permissions were gained from them for recording their interviews and they were assured that the gathered data would only be used for research objectives. It was also announced to the participants that they could withdraw from the research anytime they liked and their information would remain confidential during and after the research.

Results

Participants

Infertility duration of couples ranged from 1-11 years ($M_{age} = 3$ years) and their treatment duration extended from 1-60 months ($M_{age} = 16.5$ months). The majority of couples (64.70%) had primary infertility. Primary infertility means that the couple has not had any kids thus far (Stark et al., 2011). Most couples (70.58%) had female infertility and the majority with secondary infertility (83.33%) had one child. Secondary infertility means that the couple has experienced full-term pregnancy and birth before (Stark, et al. 2011). In regard with education, most female participants (52.94%) had a university degree. The majority of male participants (76.47%) had no academic (university) education (see table 1, for general characteristics of the participants).

Table 1: Participant Characteristics

Characteristics	Subgroup	N (%)
Type of Infertility	Primary	11 (64.70%)
	Secondary	6 (35.29%)
Causes of Infertility	Female	12 (70.58%)
	Male	3 (17.64%)
	Both Male & Female	2 (11.76%)
Participants' Education Status	Female: Bachelor Degree	6 (35.29%)
	Associates	3 (17.64%)
	High School Diploma	3 (17.64%)
	Pre-Diploma	5 (29.41%)
	Male: Post graduate	1 (5.88%)
	Graduate	3 (17.64%)
	High School Diploma	6 (35.29%)
Pre-Diploma	7 (41.17%)	
Parental Status in Couples with Secondary Infertility	No Children	1 (16.66%)
	1 Child	5 (83.33%)

Categories and the Main Theme

Data analysis indicated 5 categories of needs felt by the couples during diagnosis and treatment of infertility:

1. A sense of competency and self-efficacy;
2. A sense of being valued and self-esteem;
3. A sense of confidence, trust, and satisfaction;
4. Information, reinforcement of knowledge and understanding;
5. Financial support and facilitation in regard with use of services.

These five categories share one common theme, namely “empowerment and sense of adequacy,” which signifies one of the fundamental needs of couples (See table 2, for results obtained from data analysis).

Sense of Competency and Self-Efficacy

One of the issues pointed out and emphasized by some of the couples was the necessity of addressing their needs, respecting their opinion, freedom and independence in regard with their choice of their physician, and continuation of their treatment with the same physician. “I used to go to the clinic for several months, but every time I was visited by a different physician” said one of participants. Another participant stated: “The first time I went to the clinic, they didn’t let me visit a certain physician. I needed to go to other physicians first. They wouldn’t respect patients’ ideas and opinions and they did as they wished.”

Some participants stated that they were not allowed to get involved in decision-makings in regard with their treatment. They regarded this behavior as ignoring their right of freedom and independence, and interpreted it as disrespect to their opinion. “For instance, I had heard from other patients that injections were also prescribed in addition to pills. I requested the physician to include such injections in the prescription, but the physician was annoyed by my request and said that she did the treatment and the patient should leave everything in physician’s hands,” stated one of the patients.

Sense of Being Valued and Self-esteem

Another significant need which was emphasized in participants’ interviews was the sense of being valued, respect for them and their dignity and social status, and provision of proper behavior by medical staff. The fulfillment of this need would encourage the patients to cope better with the challenges and stress resulting from infertility and its treatment. Participants stated that medical personnel’s behavior was not appropriate and not befitting their social status. Such behavior had annoyed them. “The personnel can treat a bit more graciously and appropriately. Their behavior is undesirable. For example, there are some people working in this office who are all respected and well-behaving women, but one of them is so cross. One must treat his or her patient appropriately. I, as a patient who is coming to this center, am stressed. I wish the personnel could understand this point and could behave more appropriately,” stated one of the participants.

Table 2: Results obtained from data analysis

Theme Shared between categories	Category	Subcategory
Empowerment and Sense of Adequacy	A sense of being valued and self-esteem	<p>Freedom to choose the treating physician; Certainty of the continuity of treatment and care that will only be offered by one certain (fixed) physician; Involvement and participating in decision making in regard with diagnosis and treatment.</p> <p>Respect to the patients proportionate to their human dignity by doctors and medical personnel; Necessity of observing the ethical and humanistic principles by Physicians and Medical Personnel; Respect to patients' privacy by the physicians and medical personnel; Necessity of physicians' and medical staff's good mood and polite manner toward the patients; Necessity of more patience and allocating adequate time for treating each patient by physicians and medical personnel.</p>
	A sense of confidence, trust, and satisfaction	<p>Empathy and psycho-emotional support by physicians and medical personnel; Necessity of intimate relation with physicians and medical personnel; Direct interaction with the physicians in visiting sessions; Necessity of honesty and receiving factual information from physicians; Easy access to the physician in necessary conditions; Provision of comfort, tranquility, and security by the physicians and medical personnel; Necessity of commitment and competence in physicians and medical personnel; Necessity of employing well trained and efficient personnel; Necessity of reinforcing hopefulness and motivation induced by physicians and medical personnel; Strong sense of responsibility exhibited by physicians and medical personnel toward patients' needs and demands; Necessity of equity and fairness in arranging appointments for the patients; Improving and optimizing access channels to physicians and necessary medical services.</p>
Empowerment and Sense of Adequacy	Information, reinforcement of knowledge and understanding	<p>Receiving necessary information from physicians and treatment team; Receiving information from other patients; Searching in scientific books and internet resources for required information; Holding training courses for infertile couples by infertility treatment centers.</p>
	Financial support and facilitation regard with use of Services	<p>Expansion of infertility treatment services by insurance companies; Support from authorities and state-run entities; Support from non-governmental entities; Provision of required medicine; Expanding and equipping state-run centers of infertility treatment; More supervision over the treatment fees obtained from patients in private clinics and physicians' offices.</p>

Another issue which was highlighted in participants' interviews was respecting patients' privacy. Participants stated that they needed to be alone when the doctors were visiting them for the sake of respecting patients' physical and psychological privacy and also the physician's adequate attention to the patient. "I am not able to talk to the physician

comfortably as they send 3 or 4 patients altogether to physician's office. I feel shy when talking about my private problems with the physician in the presence of other patients," stated one of the participants. Also, another participant stated the same problem in this regard:

While I am talking to the physician about my problems, the physician's attention is focused on another patient. I like him to know what my condition is, what I feel, and what I am talking about. But the physician does not pay attention. Patients go into physician's office in a row and the physician spends so few minutes for them. This is the situation in most of offices.

Sense of Confidence, Trust, and Satisfaction

Another need that could be noted in participants' discussions was the need for empathy, sympathy, encouragement and psycho-emotional support from physicians and medical personnel. Fulfillment of this need leads to a sense of confidence, trust, and satisfaction in participants and their greater contribution and facilitating the treatment process. "I used to go to another physician before this one. He told me that I had to wear gold-heeled shoes and come and go a lot and it was not yet definite whether I would get any results. I panicked when I heard this. The physician should not say such a thing. That was why I changed my physician," mentioned one of the participants in this regard.

The necessity of direct and unmediated interaction between the patient and the physician was much highlighted in participants' discussions, and non-fulfillment of this issue has led to much dissatisfaction and distrust of patients with the treatment process. "Physicians must spend more time with patients; that is, at least they themselves talk to the patients. Patients will trust the treatment more this way. It was true in my case. I couldn't trust the nurses whether they had conveyed my message to the physician correctly," mentioned one of the participants.

Other issues which stand out in participants' discussions are the sense of responsibility on the side of medical personnel in regard with patients' needs and demands and ease of access to the treating physician when necessary. "I am coming from a long distance. I only need to show my test results to the physician and I expect the secretary to send me in without having to stand in a queue. But the secretary does not cooperate and therefore I need to sit in the office for long hours while my husband and daughter are waiting outside the office. What should I do?" stated one of the participants in this regard.

Another significant issue in participants' discussions was their opinion according to which physicians must become, and remain committed, to their sense of conscientiousness, academic and professional qualification and sense of responsibility for patients. "I expect physicians to pay more attention and be more conscientious. The patient is spending much time and money, so physicians need to pay more attention to diagnosis and give hope to patients," mentioned one of the participants. "My only expectation is right diagnosis. I suffered a lot and visited many different physicians. I had turned into a lab rat," added another participant.

Participants' experience, especially those of female participants, indicated the necessity of an intimate relation between the patient and the physician and its effect on reduction of stress caused by infertility. Non-fulfillment of this issue led to patients' insecurity and stress. "One likes to feel secure, confident and comfortable when visiting a physician; that is, a more intimate relation with the physician. Nowadays, due to load of work and lack of time, physicians work like a machine automatically, and this imposes some stress

on the patient. Everything is compressed now. Questions and answers are exchanged rapidly and then it is done,” added another participant in this regard.

Another issue which was conspicuous in participants’ discussions indicated their dissatisfaction with reservation system utilized in clinics. “Another issue is the bad reservation system. Making appointments is very difficult. When you refer to clinics, appointments are made for 2 to 4 months later. In short, you won’t be able to visit the physician when you need. Unhappily, reservations and appointments are made through connections as well. If you have no connections, it would be very difficult to make any appointments,” mentioned one of the participants.

Information, Reinforcement of Knowledge and Understanding

Inadequate information on the nature of disease, unawareness of the reasons as well as the consequences of a diagnostic and treatment method, and inappropriate responses given by physicians and medical personnel to patients’ questions are among the issues which are mentioned by most of participants as the current problems in treatment process. Training patients and providing adequate information not only gain patients’ trust, but also gain their better contribution during the treatment and caring process. “The bad thing about this clinic is that they provide no explanation. They don’t tell you what the problem is, what the cause is, how long it takes, how hopeful I can be etc. I myself searched online to know what the problem is,” said one of the participants. “I feel like they should have held a course or a class and have told us what they are doing or how hopeful one can be, one should try or not. I feel this is the worst thing,” added another participant. “When you come to this clinic, you find out some information from other patients,” mentioned one of the participants.

Financial Support and Facilitation in regard with Use of Services

Enormous expenses of infertility treatments and diagnostic measures, the long-term and repetitive nature of these measures and patients’ insufficient financial resources were among greatest problems of participants which were highlighted several times during their discussions and interviews. Most of the participants regarded the huge expenses of the treatment and their financial problems as the main factor of postponing, or even possible future dropout, from the treatment. “Most of the times, I borrow money for my treatments. I don’t have a good financial situation. We even have problems with affording for life. My husband is a simple worker. We are actually living in genteel poverty (tears appear in her eyes). We have no one to help us. In short, government should support the families suffering from financial problems,” stated one of the participants. “We managed to have a child only by borrowing money from others. We are insured by Social Security Organization. Insurance does not help at all. It is very difficult. We got a loan from Emdad Committee through some recommendations,” stated another participant.

The expenses and difficulty of provision of medicines and scarcity or nonexistence of foreign medicines due to embargoes are among the problems which were emphasized by participants. They believed that governmental authorities must take measures for alleviating these issues. “Medicine expenses are also high. Some of them are difficult to find. Due to embargoes, one currently cannot find the foreign type of the shots. I have only one request from authorities: please provide the required medicines so our efforts are not wasted,” said one of the participants.

Discussion

This study is the first research work of a qualitative content analysis approach exploring Iranian infertile couples' needs during evaluation and treatment processes of infertility. In addition to providing a clear perspective about infertile patients' needs, the research findings of this study re-emphasize the medical staff's role and responsibility. Several studies have shown that besides medical treatment, it is necessary to pay attention and recognize the human needs of infertile patients. They emphasized that provision of care conforming to infertile couples' needs and expectation is among patients' fundamental rights (Brandes et al., 2009; Dancet et al., 2010; Daniluk, 2001; Fahami, Hosseini-Quchani, Ehsanpour, & Zargham-Boroujeni, 2010; Leitea, Makucha, Pettaa, & Morais, 2005; Schmidt, 1998; Sundby et al., 1994; Van Empel et al., 2010).

This study showed that "empowerment and a sense of adequacy" was one of the fundamental needs of infertile couples, which included five main needs: "a sense of competency and self-efficacy;" "a sense of being valued and self-esteem;" "a sense of confidence, trust, and satisfaction;" "information, reinforcement of knowledge and understanding;" and "financial support and facilitation in regard with use of services."

The present study showed that patients' contribution to the treatment process, autonomy in the selection of an expert physician and continuation of treatment with one fixed physician are among patients' important expectations and indicate their need of a sense of competence and self-efficacy on the path of treatment. In the health care system of Iran like that of many other countries, it is common for the medical personnel to make decisions without taking patients' opinion into consideration, while shared decision-making is considered as patients' right leading to patients' greater satisfaction (Reje, Heravi-Karimvi, & Foroughan, 2010). In this field, two studies found that infertile couples emphasized the importance of their autonomy and appreciated informed shared decision-making (Dancet et al., 2011; Wilkes, Hall, Crosland, Murdoch, & Rubin, 2009).

The majority of couples (especially women) in this study favored medical staff's sympathetic and polite manner, commensurating with human dignity, toward the patients. Patient's Bill of Rights states that patients have the right to considerate and respectful care (Rangraz-Jeddi & Rabiei, 2005). Nowadays, despite physicians and medical personnel's efforts as well as availability of sufficient equipment, patients' dissatisfaction has increased. Patients want the medical personnel to recognize patients' rights in addition to fulfilling their medical and health needs (Bokaei et al., 2012).

In this study, patients expected to receive more hope and psycho-emotional support from medical personnel especially the doctors. Furthermore, many couples (women particularly) wanted to have more direct and intimate relation with their doctors. The fulfillment of these needs can lead to patients' satisfaction and encourage them to complete their treatment program. Most participants regarded shortage of time, great number of patients, and tight working hours of physicians as the main causes of such inadequacy. Infertile patients, in comparison with other patients suffering from other diseases, seem to be more sensitive in regard with emotional support and continuation of treatment (Van Empel et al., 2010). The necessity of emotional support and the strength of the relationship between infertile patients and medical staff have been shown in other studies too (Brandes et al., 2009; Dancet et al., 2011; Dancet et al., 2010; Fahami et al., 2010; Khodakarami et al., 2009; Sundby et al., 1994; Wilkes et al., 2009).

The results of the study showed that information needs is also another requirement. Necessity of providing information and training patients are other aspects of empowerment of infertile patients during diagnosis and treatment. Evidence indicates that healthcare providers underestimate patients' willingness to receive information and thus ignore this need (Reje et

al., 2010). Non-provision of enough information by medical staff makes the patients look for the information in other resources such as the Internet, books and other patients, while providing comprehensive and accurate information is among the inalienable rights of the infertile couples and leads to patients' greater trust, confidence, and satisfaction. (Fahami et al., 2010).

High rate of medical expenses, difficulties in supplying necessary medicines, insufficiency of financial resources, scarcity or nonexistence of foreign medicines due to embargoes, inadequacy of insurance services, and lack of supportive institutes and insurance companies that can cover some part of the costs, were the most serious concerns imposing great stress and difficult situations on infertile couples in the present study. Most of them, only due to the huge expenses of treatment, are forced to postpone or discontinue their treatment. In countries where the financial costs of infertility treatment must be mainly covered by the couple, the decision to continue or to discontinue treatment is probably strongly influenced by financial issues (Troude et al., 2012). Overall, diagnosis and treatment of infertility are time consuming and costly process. Many of patients have to allocate a large portion of their income to treatment costs or even borrow and take loans, while they are covered by insurance but cannot use insurance services (Khodakarami et al., 2009). Based on this, the majority of couples wanted more help and financial support from the healthcare system and respective authorities. In this regard, the results of two previous studies in Iran (Fahami et al., 2010; Khodakarami et al., 2009) are in agreement with our findings.

Some strengths of our study include, first, applying a qualitative approach with a naturalistic perspective, being free from prejudice and limitations of positivistic paradigm of quantitative approaches (Reje et al., 2010). Second, all interviews were conducted by one interviewer (second author); however, data analysis by four authors helped with the credibility of the findings (Wilkes et al., 2009). Third, the current study is considered as an innovation in exploration of Iranian infertile couples' needs during evaluation and treatment processes of infertility which provides a wider perspective in regard with infertile couples' needs, expectations, and concerns. Most of the available literature describing Iranian patients' experience of infertility relates to their lived experience of infertility and sometimes some of them (Fahami et al., 2010; Khodakarami et al., 2009) have pointed out patients' concerns about the treatment process of infertility in short. Fourth, as infertility is a couple problem and not an individual problem (Wilkes et al., 2009), infertile couples (not infertile men or women alone) were recruited as the participants of the present study.

However, as this study was of a qualitative nature and due to the limited number of participants, the obtained results cannot be generalised to the whole population of infertile couples. A study with more participants categorized as per participants' gender, age, type of infertility, different phases of treatment and various treatment outcomes can be carried out to study patients' needs in terms of above mentioned criteria. Furthermore, more research on infertile patients' needs and preferences according to professionals' experiences is recommended. It would be helpful to explore more comprehensive information about the infertile patients' expectations and needs.

In conclusion, an overview of infertile couples' experiences in the current study showed that, in addition to medical needs, they were facing many problems during diagnosis and treatment processes. Moreover, this reflects patients' unmet needs and indicates that these under-studied fertility care centers in Iran are not patient-centered, and patients' rights are not recognised appropriately. Thus, recognition of patients' needs and preferences, provision of programs for drawing out the strengths and weaknesses of medical personnel, promotion of their communicative skills, and providing adequate trainings to medical staff can move further toward patient-centered healthcare services, paying more attention to patients, providing optimum responses to patients' needs, and empowerment of them. This

certainly adds to the quality, efficacy, and cost-effectiveness of the healthcare programs in infertility care centers.

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Acknowledgments: This study is one part of second author's PhD Thesis on Reproductive Health which was approved at Isfahan University of Medical Sciences. Thus, researchers of this study wish to express their gratefulness to all authorities for their financial support for this study. We thank all infertile couples and professionals from the public and private infertility treatment centers for their participation and cooperation in the data gathering.

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Article Citation

Zargham-Boroujeni, A., Jafarzadeh-Kenarsari, F., Ghahiri, A., & Habibi, M. (2014). Empowerment and sense of adequacy in infertile couples; a fundamental need in treatment process of interfertility: A qualitative study. *The Qualitative Report*, 19(11), 1-14. Retrieved from <http://www.nova.edu/ssss/QR/QR19/zargham-boroujeni11.pdf>
