

Evaluating the experiences of surrogate and intended mothers in terms of surrogacy in Isfahan

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Abstract

Background: Using the method “surrogacy”, in which a woman accepts to bear and deliver a child for a married couple, is considered as a subsidiary method in infertility therapy. This method is relatively new in Iran.

Objective: The purpose of this study was to evaluate the experiences of the women involved in surrogacy and to reveal some issues related to this method.

Materials and Methods: The method of research was analytic–descriptive and causative – comparative type. The 5-item neo - questionnaire and structured interview were used simultaneously. The sample consisted of 15 surrogate mothers, 15 intended mothers, and 30 normal mothers (each with one or more children). The studied data was gathered in the fall and winter of 2009 in Isfahan by the researcher (Monir Pashmi) and data analysis was executed through the use of descriptive data (such as the median, standard deviation) and interpretive data (T- test).

Results: The research revealed that, in terms of social – cultural status, the surrogate and intended mothers were completely different but their psychological characteristics were not significantly varied. Results indicate the satisfaction and consent of both sides involved in the surrogacy. They had a good relationship during the pregnancy period but after delivery the intended mother wanted no further relationship, they found out this method an altruistic experience.

Conclusion: Most surrogate and intended mothers do not consider surrogacy a problematic issue. A number of mothers, however, did mention that they had not been given the appropriate counseling beforehand. It seems plausible, therefore, to endeavour a general rise in the socio – cultural awareness of surrogacy in Iranian society.

Key words: Surrogacy, Surrogate mother, Intended mother, Fertility, Infertility.

Introduction

Developments in medical sciences in terms of innovative methods in infertility therapy resulted in great changes in the human reproduction process. One of subsidiary methods in infertility therapy is surrogacy. Surrogacy is a method in which a woman accepts to carry a fetus (which belongs to an infertile couple) in her womb to maturity and

after giving birth deliver it to the infertile couple. The woman who carries the child is called the surrogate mother and the infertile couple is called the intended parents (1). Surrogacy is performed in two ways:

1- Conventional surrogacy in which the mother has a genetic relationship with the child and the egg of the surrogate mother is conceived by the sperm of the spouse of an infertile woman artificially(2), and

2- Full surrogacy in which the pregnant woman has no genetic relationship with the child. In this method, the surrogate mother carries the embryo conceived in vitro (3).

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Both methods may be done with the intention to gain money, that is, the surrogate mother is paid and all the expenses related to medical care and other related expenses are paid for by the intended parents. It may also be done with altruistic intention. This paper deals with full surrogacy method.

Surrogacy is performed due to the following reasons:

- a) Lack of a womb
- b) Hysterectomy
- c) Risky pregnancy or delivery due to chronic diseases such as heart diseases or cancer (4)
- d) Frequent miscarriage resulting in infertility (5)
- e) Failure of infertility therapy by ectopic pregnancy. In some cases, the uterus does not have the ability to maintain the fetus in the early stages of development (6).

In relation to the motives and experiences of surrogate mothers during and after pregnancy, little research has been done. An interview of 19 surrogate mothers in England showed that these mothers had varying motives, including financial gain, the pleasure of pregnancy and giving birth, sublime feelings and the satisfaction of helping others (7). Ten of the 19 women encountered the negative reactions of friends and relatives. In the present study, the examined sample consisted of women in different phases, from the pregnancy period to the time when the born child reached school age. The surrogate mothers' motivations and expectations were studied in a research by Jadva *et al* (2003). In most cases, the motivation was to help the couple who were not able to have offspring by any other method. Some reported the experience of pregnancy very attractive and they wanted to help a friend or a relative. It is believed commonly that the surrogate mother will suffer from the experience of separating and giving the newborn to the intended parent. The above studies disapprove these beliefs. Contrary to the assumptions, none of the surrogate mothers reported any dissatisfaction or special problems about giving the newborns to the intended parents, and the few who did experience psychological problems improved gradually. However, no severe anxiety or depression disorder was seen clinically in the surrogate mother after delivery (8).

A study on 26 couples receiving children by the surrogacy method showed that they reported this experience positive and none of them had psychological or legal problems (9). It was

reported in a study on the psychological experiences of surrogate and intended mothers that both experienced a high level of anxiety in the last phases of pregnancy. But, the intended mother experienced more anxiety due to her attachment to the child and the worries about its health (10).

The purpose of this study was to examine the experiences of the surrogate and intended mothers and to determine the efficacy of this method and the satisfaction of the people involved and the likely problems which may surface between the two parties involved and the related solutions. Also, as a result of this research the socio – cultural differences and the psychological differences/similarities of the surrogate and intended mothers were revealed.

Materials and methods

The method of research was analytic–descriptive and causative – comparative type. In this research, in order to determine the experiences of the females involved in the surrogacy method, both questionnaire and structured interview were utilized.

The structured interview was utilized since a specific set of questions were to be asked. The statistical universe in this study consists of infertile women (mothers requesting surrogacy) and surrogate mothers who referred to "Isfahan Fertility and Infertility Center" in 2009. Also to compare these women with normal ones, a sample was selected among fertile woman who had had children through normal pregnancy. The sample consisted of 60 women, 15 surrogate and 15 intended mothers, and 30 normal women.

To select the sample, the method used was available systematic random sampling do to the sensitivity of the issue and the inadequacy of the number of subjects, and the fact that some of them were not willing to cooperate. The tool used to measure the data was 35-item neo questionnaire with nominal and statistical validity, evaluated by some university professors, and applied to a group of 500 individuals. This form (neo-questionnaire) was obtained from the Oliver and John 5-factor test with 44-questions and its validity and reliability were evaluated. The Alpha Cronbach was calculated for extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience as 0.56, 0.61, 0.66, 0.70, and 0.58, respectively.

The above mentioned variables are considered very important among researchers and valuable researches have been conducted on them in recent years. Casta and Mac Gray proposed a 5-factor test; they believed the main characteristics determining the personality are as follows:

- 1) Extraversion (E): it is a characteristic for people who are talkative, with high energy, assuming, and sociable.
- 2) Agreeableness (A): it is a characteristic for people who are good-natured, optimistic, altruist, confident, courteous, determined, and affectionate.
- 3) Conscientiousness (C): these are peoples who are dutiful, orderly, trustworthy, and with goal-oriented behaviors.
- 4) Neuroticism (N): they are anxious, sensitive to depression and worries contrary to the people with high stability of emotions are placed.
- 5) Openness to experience (O): they are peoples with strong imagination, independent in thinking, having various views, and ready to obtain new experience (11).

Therefore, we used the 5-factor personality test. The data was gathered in a 4-month field research in autumn and winter of 2009 in Isfahan by Monir Pashmi.

Results

1-Surrogate mothers

a) Attitude and purpose of surrogate mothers

Overall, 13.3% of the surrogate mothers were relatives of the intended mothers, of whom one performed surrogacy for her sister and the other for the sister of her spouse. These surrogate mothers had altruistic purposes and wanted to help the infertile couple. In 46.6 % of cases, it was indicated that the motive was firstly altruistic goals and then financial problems. This can be doubted as being merely an automatic response to the interviewer rather than a reflection of the females' true feeling. The other 40 % cases indicated first the financial purposes and then the altruistic goals.

b) Relationship between the surrogate and intended mothers

As indicated earlier, 13.3% of the surrogate mothers were relatives of the intended mothers and had a good relationship with each other and also the surrogate mother visited the child frequently after delivery and was informed of its growth. In other cases in which the parties were strangers, the

relation between the surrogate and the intended mothers was good and they rang and visited each other almost frequently and the intended mother pursued the process of the fetus's growth, and even some of them passed the night with the surrogate mother as a close friend and experienced the feeling of maternity. But this relation was ended completely after delivery and the relinquishment of the child to the intended parents due to the concerns of the intended parents. All of them, except one case, indicated that they didn't want to have any relationship with the surrogate mother and didn't let the surrogate mother see the baby.

c) Informing the relatives of surrogacy

In 46.6% of the cases, the surrogate mothers indicated that no one was informed of the surrogacy. They indicated the reasons for the hiding of this fact so: most people are not familiar with this method and some of them have a negative attitude toward it, some believe that it is forbidden in terms of religious rules or that we are selling our baby. In 40%, some relatives, such as mother, sister, mother-in-law, were informed, and it was hidden from other people because of the above reasons. Only in 13.3%, the surrogacy had the familial backgrounds and the surrogate and intended mothers were relatives and all the family and the relatives knew it, but these cases were also problematic.

d) Mental status of surrogate mothers

In all cases, all the surrogate mothers were happy to help the infertile couple and their main purpose was altruistic assistance. In terms of the relinquishment of the child to the intended parents, all the surrogate mothers had no problems except one mother. She felt unhappy not to see the baby after the delivery and asked several times the intended mother to let her visit the child and after several months she felt better. In general, the surrogate mothers had no mental problems during pregnancy and after delivery, one woman even expressed that she had performed surrogacy before and at the time of the interview she was pregnant in surrogacy for the second time for other intended parents.

e) The surrogacy agreement and financial issues for surrogate mothers

Because the agreement is preset by the " Isfahan Fertile and Infertile Center", and the center

oversees it, so all the interviewed persons indicated no worries about the surrogacy process, and all the expenses were paid by the intended father according to the agreement and even in some cases the intended father paid extra rewards to the surrogate mother to show his appreciation.

f) Consultation for surrogate mothers

The surrogate mothers were asked if they had had any consultation sessions before the surrogacy and whether or not the information about the process had been enough for them. All of them reported that they were consulted. In terms of their satisfaction of consultation 46.6 % expressed it as good and adequate and 53.3 % believed it was limited and insufficient.

2-Intended mothers

a) The intended mothers reason for surrogacy

In all cases, the intended mothers expressed that they chose this method as the last solution because of their spouses' or their own infertility or/and medical problems.

According to the interviews, all of them had a positive attitude and believed this method was the only way to get rid of the family problems and save family from separation.

b) How to choose the surrogate mother and important points from intended mothers' viewpoint

According to the fertile and infertile center, it is the center that finds and selects the surrogate mothers, then proposes them for surrogacy. The intended mother can inspect and then accept or reject.

In the cases in which the intended mother considered carefully the process of selecting surrogate mothers, they stated the following criteria for surrogate mothers: Appearance, healthy status, religious beliefs, gentility, chastity, piety, intelligence, having healthy family, being young (under 29 years old), being married and having young children, wise and informed.

c) Informing the relatives of using surrogacy

During the interview, 53.3 % of the intended mothers reported that they had said the matter to their family and relatives and there was no problem for them, even the other infertile mothers had been

informed of the method and were interested in it. In 46.6 %, the intended mothers indicated that they had hidden the matter from the relative.

d) Mental status of intended mothers

All the intended mothers were happy to use this method and reported that they could have a child genetically theirs through this method. Also, the intended mother experienced happy as well as anxious feelings during the pregnancy of surrogate mother. They were anxious about the health of both the surrogate mother and the baby.

3- Normal mothers

Normal mothers had one or more children and their age were 20 to 38 years old.

A) Comparison of demographic characteristic between two groups (surrogated and intended mother)

According to table III and in terms of the education level, 33.3% the surrogate mothers were under the diploma level, and 66.7% were at the diploma level, while of 33.3% the intended mothers were under diploma, 20% had diploma, 33.3% had junior college diploma, and 13.3% had bachelor degree.

The mean of surrogate and intended mothers' age was 25.86 and 34.86 years, respectively. In total, there was significant difference between two groups in terms of education level and age and also the husbands' education levels.

B) Comparing the characteristic traits (personality characteristics) of surrogate mothers with intended mothers

According to the findings there were no differences between the means of all 5 factors (characteristics, traits) in the two groups. The surrogate and intended mothers had no differences in characteristics (traits) measured by the neo-questionnaire.

C) Comparing the characteristic traits (personality characteristics) of surrogate and intended mothers with normal mothers

There were no differences between the means of all 5 factors (characteristics, traits) in the two groups.

Table I. Demographic characteristic of surrogate mothers.

Surrogate mother	Age	No. of children	Education and job	Education and job of male parent
No. 1	29	2	Diploma-Housewife	Diploma-Worker
No. 2	30	2	Degree of primary school-Carpet weaver	Degree from secondary school- Barber
No. 3	20	1	Diploma-Housewife	Diploma-Confectioner
No. 4	25	1	Diploma-Housewife	Diploma-Driver
No. 5	38	2	Illiterate-Housewife	Degree from secondary school –Driver
No. 6	27	2	Diploma-Seller	Diploma-Self employed
No. 7	26	1	Diploma-Housewife	MS.-Employee
No. 8	24	1	Diploma-Housewife	Diploma-Self employed
No. 9	32	1	Degree of primary school-Housewife	Diploma- Self employed
No. 10	33	1	Diploma-Housewife	Degree from secondary school - Self employed
No. 11	32	1	Diploma-Housewife	Degree from secondary school - Self employed
No. 12	27	2	Diploma-Housewife	Degree from secondary school - Self employed
No. 13	28	2	Degree of secondary school –Housewife	Degree from secondary school - Self employed
No. 14	25	1	Diploma-Housewife	Diploma- Self employed
No. 15	30	2	Diploma-Housewife	Diploma –Driver

Secondary school is a stage of education which is between elementary school and high school.

Table II. Demographic characteristic of intended mothers.

Intended mother	Age	Duration of marriage	Education and job	Education and job of male parent
No. 1	46	20	Diploma-Teacher	Diploma-Employee
No. 2	31	15	Degree of primary school-Housewife	Diploma-Worker
No. 3	40	3	Associate degree- Housewife	Diploma-Self employed
No. 4	33	7	MS-Employee	MS-Employee
No. 5	35	10	Degree of secondary school-Housewife	Diploma-Self employed
No. 6	38	11	M.D.- Physician	MS-Engineer
No. 7	39	20	Diploma- Housewife	Diploma- Employee
No. 8	29	7	Diploma- Housewife	Degree from secondary school - Self employed
No. 9	37	11	M.D.- Physician	M.D.- Physician
No. 10	32	14	Associate degree-Student	Associate degree- Employee
No. 11	35	10	MS.-Teacher	MS-Employee
No. 12	27	10	Diploma- housewife	MS-Self employed
No. 13	39	15	MS.-Employee	MS-Contractor
No. 14	39	21	Degree of secondary school-Housewife	Diploma-Self employed
No. 15	31	7	MS- Housewife	MS-Employee

Table III. Comparison of educational level of surrogate and intended mothers.

	Under diploma	Diploma	Junior college diploma	Bachelors degree and higher	Number
Surrogate mother	5 (33.3%)	10 (66.7%)			15
Intended mother	5 (33.3%)	3 (20.0%)	5 (33.3%)	2 (13.3%)	15
Total	10 (33.3%)	13 (43.30%)	5 (16.7%)	2 (6.7%)	30

$X = 10.76$, $df = 3$, $sig < 0.013$, Sig: significant χ^2 : chi-square

Table IV. Comparison of husbands' educational level of two groups.

	Under diploma	Diploma	Junior college diploma	Bachelors degree and higher	Number
Surrogated mother	8 (53.3%)	6 (40.0%)		1 (6.7%)	15
Intended mother	1 (6.7%)	5 (33.3%)	7 (46.7%)	2 (13.3%)	15
Total	9 (30.0%)	11(36.7%)	7 (23.3%)	3 (10.0%)	30

$X = 12.03$, $df = 3$, $sig < 0.007$, Sig : significant, χ^2 : chi-square

Table V. The comparison of the characteristic traits between surrogate and intended mothers.

	Surrogated mother	Intended mother	T	P
Agreeableness	24.20 (4.19)	26.33 (3.88)	1.44	0.160
Neuroticism	31.80 (2.04)	29.13 (4.70)	2.01	0.054
Conscientiousness	26.60 (2.72)	26.80 (2.75)	0.20	0.843
Extraversion	15.60 (4.30)	18.20 (4.98)	1.52	0.138
Openness to experience	23.66 (3.17)	24.06 (3.01)	0.354	0.726

Numbers are presented as Mean (Std. Deviation). T= Test statistics.

P= p-value or significant so the observed t at $p \leq 0.05$ wasn't significant (meaningful).

Table VI. Comparison of characteristic trait of surrogate and intended mothers with normal mothers.

	Surrogated and intended mothers	Normal mothers	T	P
Agreeableness	30.13 (3.62)	28.83 (4.63)	1.20	0.232
Neuroticism	18.30 (4.69)	17.73 (4.31)	0.487	0.628
Conscientiousness	26.30 (3.16)	27.40 (3.46)	1.28	0.204
Extraversion	24.83 (4.66)	26.00 (4.59)	0.979	0.33
Openness to experience	24.30 (2.93)	22.86 (3.59)	1.69	0.096

Numbers are presented as Mean (Std. Deviation). T= Test statistics.

P= p-value or significant so the observed t at $p \leq 0.05$ wasn't significant (meaningful).

Discussion

According to the findings, the surrogate and intended mothers vary from each other in terms of individual characteristics. This means that there is a significant difference between the two groups in terms of education level, age, and the spouses' education level. The mean of surrogate mothers and intended mothers' age was 25.86 and 34.86, respectively, and this difference shows that the infertile couple had spent a number of years trying to solve their problem, also it is considered as a special characteristic that the surrogate mothers are preferred to be young and in an appropriate pregnancy age. So, the differences between the two groups in terms of education level and age and also of spouse's education indicate the differences in life style and social status. The surrogate and intended mothers had no differences in characteristics (traits) measured by the neo-questionnaire.

The characteristics (traits) are extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience. Also, there were no reports about any concerns of financial exploitation, fear of not relinquishing the child by the surrogate mother, legal, emotional, and social problems, and the genetic relation with the child in our study while most concerns were related to the social attitude toward surrogacy. Lack of or insufficient information about surrogacy causes more than half of them using this method to hide the matter. So giving sufficient information about surrogacy and the other supplemental therapies for infertility by the media such as TV and newspapers

can improve the negative attitude toward the surrogacy and assist most surrogate mothers and infertile couples. One of the results which was obtained through interviewing of surrogate mothers was the fact that they presened altruistic feelings as their motive; a result that can be doubted as being merely an automatic response to the interviewer rather than a reflection of the females true feeling. The surrogate and intended mothers are women like normal ones with this difference that the intended mothers are women with physical problems but nevertheless like other women wish to have a child of their own. After many years of treatment and therapy and trying various ways and methods, they have come to this conclusion that the only solution is to use the surrogacy method. But, on the other hand, the surrogate mothers are normal women like others and have experienced pregnancy at least once; they sometimes have financial problems, and by getting information about this method, they conclude that they can both solve their financial problems with the money they receive, and also help the infertile couple realize their desires and wishes.

There are contradictory evidences about the method of surrogacy. Some of them show that the relinquishment of the child can result in psychological problems and depression for the surrogate mother. Also, there are some concerns about the relinquishment of the child, and the lack of concern in the surrogate mothers can result in some problems for the fetus and the mother (7). It was show in a research by Jadva *et al* (8) in England that all the surrogate mothers gave the child to the intended parents without any exception

according to the proposed agreements. Following up the mental experiences of the surrogate mothers showed that of the surrogate mothers 32% experienced mental and emotional problems. This rate decreased to 15% after several months and it continued for a year in 6% of the studied cases. According to this study, emotional and mental problems may increase after delivery and giving the child to the intended parent when the surrogate mother is acquainted with the intended mother. In the above mentioned research, 9% of the women already had problems and in 6% of them it was necessary to visit a psychologist, and only one case was under the supervision of a psychologist during the pregnancy period (12).

A number of the surrogate mothers interviewed by Blyth indicated that they felt exploited. More often the surrogacy agreements are bound between two parties with unequal power, education, and financial status (13). As the results from our study also indicate the same difference exists in education level and socioeconomic status of the two groups. So in the case of no consultation, it is possible that the women would be exploited (14).

Many surrogate mothers explain that being involved in the surrogacy process necessitates special personal characteristics. However, mental pathological studies didn't show any psychological problems among them (15, 16). Interviewing 19 surrogate mothers, Baslington evaluated them as very brave women (17). But, in the present study, the test conducted on the women involving surrogacy and normal women showed no significant (meaningful) difference in their personality characteristics.

Van den Akker's researches on surrogate mothers showed that most of the surrogate mothers described the surrogacy and delivery as an enjoyable experience. Most of them considered the experience of surrogacy as a kind of maturation or an addition of something to their life, enhancing self-reliance and close relationship with the intended parents, especially the intended mothers. Even some of them considered the surrogacy as passing a positive development phase such as the feeling of satisfaction which the mountain climber feels after having surmounted the summit, starting high education, or studying midwifery. Relinquishing the child was considered as pleasurable experience by most of the surrogate mothers. A few of them felt this happiness accompanied with a little sadness resulting from the relinquishing the child (10).

The researches by Van den Akker showed that the lack of social support for surrogacy, resulting

from the public's negative attitude, can make surrogate mothers vulnerable (18). Most of the studies don't report acute psychological problems for the surrogate mothers and emphasis is more often on the positive experiences (8, 19, 20). However, both mothers, surrogate and intended, need professional psychological interventions during the process of surrogacy to pass this period (10). Despite the concerns about surrogacy, the intended mothers don't describe this process as being problematic, but it doesn't mean that the surrogacy process is an easy one and the couple can cope with it very easily (21). In studies by Golombok and Murray (2004) on 24 intended parents, there were no reports about concerns of financial exploitation, fear of not relinquishing the child by the surrogate mother, legal, emotional, and social problems, and genetic relation with the child (22,23). Research shows that there are a good relationship between the surrogate and intended mothers during the pregnancy period. This relation is mostly between the surrogate mother and the intended mother rather than the intended father. Most of the mothers communicate with each other and the intended mothers follow up the medical examinations of the surrogate mothers actively. The researches show that the surrogate mother is content with the presence of the intended mother and her involvement in the process of surrogacy (10).

Conclusion

According to the present study, both surrogate and intended mothers consider the process of surrogacy as positive experiences and have no special problems. In general, although there are many legal, psychological and social challenges in the process of surrogacy, results show that this process is considered as a altruistic, satisfying experience with the least of legal and psychological problems, and both surrogate and intended mothers are satisfied with it. The only concern is the negative attitude of the public which can be improved by informing and giving information about this method by the media.

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References

1. Brinsden PR. Gestational surrogacy: Textbook of Assisted Reproductive Techniques. Taylor & Francis 2004; 855-866.
2. Sullivan L. Surrogacy: the case for a conventional approach. *Med Law* 1991; 10: 401-415.
3. Golombok S, Murray C, Jadv V, Lycett E, MacCallum F, Rust J. Non-genetic and non-gestational parenthood: consequences for parent-child relationships and the psychological well-being of mothers, fathers and children at age 3. *Hum Reprod* 2006; 21: 1918-1924.
4. Raziel A, Schachter M, Strassburger D, Komarovsky D, Ron-El R, Friedler S. Eight years' experience with an IVF surrogate gestational pregnancy program. *Reprod Biomed Online* 2005; 11: 254-258.
5. Carp HJ, Dirnfeld M, Dor J, Grudzinskas JG. ART in recurrent miscarriage: preimplantation genetic diagnosis/screening or surrogacy? *Hum Reprod* 2004; 19: 1502-1505.
6. Brinsden PR. Gestational surrogacy. *Hum Reprod Update* 2003; 9: 483-491.
7. Blyth E. I wanted to be interesting. I wanted to be able to say 'I've done something interesting with my life'. Interview with surrogate mother in Britain. *J Rreprod Infant Psychol* 1994; 12: 189-198.
8. Jadv V, Murray C, Lycett E, MacCallum F, Golombok S. Surrogacy: the experiences of surrogate mothers. *Hum Reprod* 2003; 18: 2196-2204.
9. Kleinpeter CB. Surrogacy: the parents' story. *Psychol Rep* 2001; 91: 201-219.
10. Van den Akker OB. Psychosocial aspects of surrogate motherhood. *Hum Reprod Update* 2007; 13: 53-62.
11. Pervin L, John O. Personality: theory and research. 8th Ed. New York: John Wiley & Sons; 2001.
12. Reilly DR. Surrogate pregnancy: a guide for Canadian prenatal health care providers. *CMAJ* 2007; 176: 483-485.
13. Harrison M. Financial incentives for surrogacy. *Women's Health Issues* 1991; 1: 145-147.
14. Committee on Ethics. ACOG committee opinion number 397, February 2008: surrogate motherhood. *Obstet Gynecol* 2008; 111: 465-470.
15. Van den Akker OB. Genetic and gestational surrogate mothers, experience of surrogacy. *J Repord Infant Psychol* 2003; 21: 145-161.
16. Hanafin H. Surrogate parenting: reassessing human bonding, Paper presented at the American sychological Association Convention ,NewYork. 1987.
17. Baslington H. Anxiety overflows. *Womens Stud Int Forum* 1996; 19: 675-684.
18. Van den Akker OB. HFEA Commissioned Report. Review: Psychosocial, moral and ethical issues involved in Donor, Surrogacy and Adoption Triads: A Graded Evaluation. Human fertilization and Embryology Association. London. 2002.
19. Ragone H. Surrogate Motherhood: Conception in the heart first edition. Westview press Boulder Co, Oxford, USA. 1994.
20. Shenfield F, Pennings G, Cohen J, Devroey P, de Wert G, Tarlatzis B. ESHRE Task Force on Ethics and Law 10: surrogacy. *Hum Reprod* 2005; 20: 2705-2707.
21. Van den Akker OB. Psychological trait and state characteristics, social support and attitudes to the surrogate pregnancy and baby. *Hum Reprod* 2007; 22: 2287-2295.
22. MacCallum F, Lycett E, Murray C, Jadv V, Golombok S. Surrogacy: the experience of commissioning couples. *Hum Reprod* 2003; 18: 1334-1342.
23. Golombok S, Murray C, Jadv V, Mac Callum F, Lycett E. Families created through surrogacy arrangements: parent-child relationships in the 1st year of life. *Dev Psychol* 2004; 40: 400-411.