

The Effect of Provision of Information Regarding Infertility Treatment Strategies on Anxiety Level of Infertile Couples

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Abstract

Background: Infertility may have many emotional and psychological implications on infertile couples. So far, different methods for reducing anxiety in infertile couples have been evaluated. The goal of this study is to evaluate the effect of provision of information regarding infertility treatment to infertile couples on their anxiety levels.

Materials and Methods: This study was conducted as a before and after clinical trial. Forty-two individuals were considered as cases and 40 as controls. In order to evaluate anxiety and depression in participants, the Hamilton Anxiety and Depression Scale (HADS) questionnaire was used. The intervention group received information about infertility treatment through a two hour face-to-face meeting and was provided with a brochure. Anxiety level was assessed at the time of admission, immediately after the session and two weeks later. Assessment was performed twice for the control group; once at the time of admission and secondly, two weeks later.

Results: Our results show that receiving information about infertility treatment significantly decreases anxiety among infertile couples two weeks post-training. This decline does not have a significant correlation with age, sex, education level of the couple, and neither with the duration nor the cause of infertility. Providing information does not have any significant effect on the rate of depression among couples.

Conclusion: It is recommended that provision of information regarding infertility treatment methods should be considered as a means of decreasing anxiety among infertile couples who refer to infertility treatment centers.

Keywords: Infertility, Anxiety, Depression, Assisted Reproductive Technique

Introduction

Infertility is defined as one year of unprotected intercourse without conception. Today, 1 out of every 6 young couples suffers from an infertility related problem. The etiology of infertility is related to a female factor in 40% of the cases and to a male factor in another 40%. In 10-20% of the cases, both male and female factors are involved. Unexplained infertility is observed in up to 10% of the cases (1-3). In a study conducted in 1997 on 1,992 20 to 30 year old women living in Tehran, 78.1% had successful conception in the first year of their marriage and the gross infertility rate was 21.9 % (4). In another study in 1996, in the city of Isfahan, the primary infertility rate was 15.1% (5). World Health Organization (WHO) has described infertility as one of the important health problems worldwide (4). Infertility may have many emo-

tional and psychological implications. Depression, hopelessness, fatigue, feelings of loneliness, isolation and anxiety lie among the adverse effects of infertility in young couples (3) which necessitate provision of counseling and psycho-social support in this field. Indicating emotional problems among infertile women and giving them psychological care is as important as the medical treatment needed for them. The support of the spouse is an emotional factor influencing life satisfaction in infertile women. On the other hand, while men are not exempt from the psychological impacts of infertility, they are usually neglected from support services provided by many infertility clinics. Therefore, the provision of psycho-social services to infertile couples; not only women, but also the rest of the family and especially the spouses,

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should be considered (6, 7).

So far, different methods such as provision of training regarding infertility treatment strategies, cognitive behavioral therapy and pharmacotherapy have been evaluated. A great number of couples referring to infertility centers are not exactly informed about the treatment process. A significant number of couples complain that they are not told about the treatment path and a lot of their questions remain unanswered. This information gap might lead to anxiety. The goal of this study is to evaluate the impact of provision of training regarding infertility treatment strategies on the anxiety level of infertile couples.

Materials and Methods

This study has been conducted as a before-after clinical trial through which infertile couples referred to Ayatollah Taleghani Hospital from September, 2006 to December, 2007 were evaluated. The couples receiving the training and the couples of the control group were selected randomly. Couples with a history of previous infertility treatment were excluded. The participants were couples who had not received any infertility treatment in the past. In case either the man or woman had a major psychiatric disorder or received pharmacotherapy for a psychiatric disorder, the couple was excluded. All the couples were in their first marriage. None of the couples had any children.

The research proposal was approved by the Medical Ethics Committee of Shahid Beheshti University of Medical Sciences. Informed consent for research was taken from all couples enrolled in the study. Demographic data was taken through a demographic information form. In the next step, HADS test was completed by a physician for each individual enrolled.

HADS test consists of fourteen questions; out of which seven evaluate anxiety and seven assess depression. Each question is scored from 0 to 3. The individual is considered free of symptoms if the total scores range from 0 to 7; and has mild anxiety or depression in case the total score is between 8 and 10. Scores in the range of 11 to 21 are indicative of severe anxiety or depression (8).

The intervention group received information about infertility treatment through a two-hour face-to-face meeting by a senior resident of psychiatry of the hospital with the help of a brochure. The information provided included etiology of infertility, treatment methods, individualized treatment plans for couples, initial assessment before treatment, the number of times they had to visit the specialist, financial expenditure and success rates in the

method suggested. The control group did not receive any information.

The HADS test was done for both groups at the time of admission, repeated for the intervention group immediately after the session and then repeated for both groups two weeks later.

Results

The intervention and control groups included 21 and 20 couples, respectively. The mean age of the intervention group was 30.7 ± 5.79 . This figure was 29.3 ± 5.19 for the control group. Among the couples enrolled in the intervention group; 10 suffered from male factor infertility, 4 were diagnosed with female factor infertility, and for 7, male and female factor infertility had been recorded. In 20 couples infertility was unexplained.

The average duration of infertility was 7.33 ± 3.93 years in the intervention group and 7.15 ± 3.68 years in the control group. In the intervention group; one individual (2.38%) was illiterate, 35 (83.33%) had a high school diploma or less, 3 (7.14%) had a college or Bachelor's degree, and 3 (7.14%) had a Masters or PhD degree. In the control group; 2 individuals (5%) were illiterate, 31 (77.5%) had a high school diploma or less, 3 (7.5%) had college or Bachelor's degree, and 4 (10%) had a Masters or PhD degree.

The results of the HADS test in the intervention group at the beginning of the study revealed clinical anxiety in 7 (16.66%) individuals and subclinical anxiety in 16 (38.09%). Immediately after receiving the training, 3 (7.14%) had clinical anxiety and 11 (26.19%) had subclinical anxiety. Two weeks post-training, 4 individuals (9.52%) had clinical anxiety and 1 (26.19%) had subclinical anxiety.

As HADS test was taken from the individuals enrolled in the control group at the time of admission, 7 (17.50%) had clinical anxiety and 15 (37.50%) had subclinical anxiety. Two weeks later, the number of individuals with clinical anxiety remained constant but 12 (30%) had subclinical anxiety.

At the beginning of the study, 2 individuals (4.76%) in the intervention group had clinical depression and 13 (30.95%) had subclinical depression. The results of HADS test was indicative of clinical depression in 3 individuals (7.14%) and subclinical depression in 10 (23.80%) after the training. Two weeks after training, 3 individuals (7.14%) had clinical depression and 9 (21.42%) had subclinical depression. In the control group, 5 (12.5%) had clinical depression and 14 (35%) had subclinical depression. Two weeks later, 6 cases had clinical

depression, and the test results for 13 individuals were indicative of subclinical depression. According to the MC-N-mar statistical test, the decrease in the anxiety score immediately after teaching ($p < 0.001$) and two weeks later in the intervention group were statistically significant ($p < 0.001$) (Fig 1).

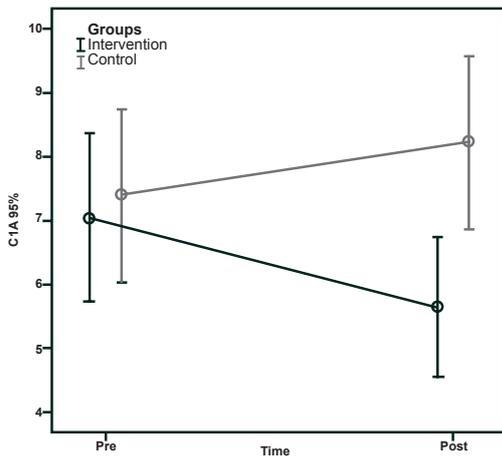


Fig 1: Change in the mean anxiety score in the intervention and control groups over a two week period.

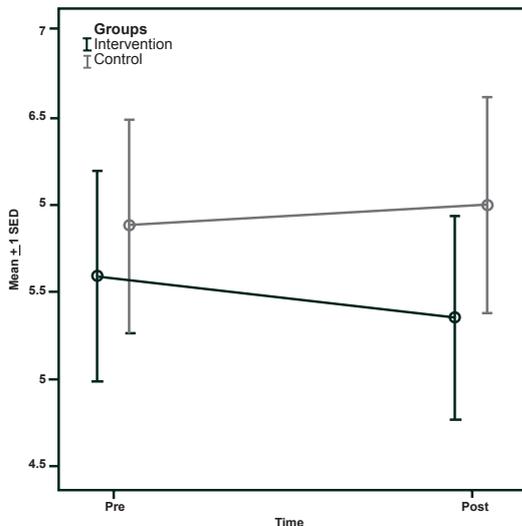


Fig 2: Change in the mean depression score in the intervention and control groups over a two week period.

This decline in anxiety did not have a significant correlation with age, sex, education of the couple, neither with the duration nor the cause of infertility. The decrease in anxiety was higher among the individuals who had higher education but this was not significant.

Although a decrease in the mean score of depression was observed in a two-week period (Fig 2), the rate of depression among the intervention group did not decrease significantly ($p = 0.369$).

Discussion

The results of this study showed that providing a short training about infertility treatment strategies to infertile couples significantly decreased their anxiety which lasted for approximately two weeks after the training session. This decrease in anxiety did not have a significant correlation with age, sex, education of the couple, neither with the duration nor the cause of infertility. There was no significant effect on the rate of depression during the same interval. The lower rates of anxiety and depression reported in this study might have resulted from the fact that all individuals diagnosed with a major psychiatric disorder were excluded from the study.

Few studies have evaluated the impact of provision of information regarding treatment methods on the anxiety level of patients. Dehghani et al. showed the effect of information provision on anxiety among infertile women in their study (9). Our study also includes infertile men; a vulnerable group that is usually neglected when psychosocial support is provided. In previous studies, the decrease in anxiety was significantly higher among the group with education above the 9th grade (9). Such a correlation was not observed in our study.

Conclusion

Taking the impact of socio-economic status and financial issues on the rate of anxiety in our patients into consideration; the results of this study, which has been conducted in a public training hospital, can not be generalized to the whole population. Further studies are recommended with a larger sample population to evaluate the long term effects of providing information to infertile patients and its effect on their anxiety level.

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