Effectiveness of positive couple therapy in the empathy and intimacy of infertile couples

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Abstract

Background: Infertility is a major life event that creates excessive stress among infertile couples. This complicated, unpredictable, and uncontrollable condition can lead to a serious crisis in the life of infertile couples.

Objectives: The present study aimed to demonstrate the effectiveness of positive couple therapy in empathy and intimacy of infertile couples.

Methods: This quasi-experimental study was conducted based on a pre-test, post-test, control group design with follow-up. The statistical population of the study consisted of all infertile couples who referred to Baran and Rah-e Sabze Zendegi counseling centers in Shiraz in 2019. Out of this population, 30 subjects were selected via convenience sampling and randomly assigned to experimental and control groups. A positive couple therapy program was performed for the experimental group, while the control group did not receive any intervention. Both groups responded to the marital empathy scale (Julie and Farrington, 2006) and the marital intimacy questionnaire (Walker and Thompson, 1983) in the pre-test, post-test, and follow-up. Data were analyzed in SPSS software (version 22) using the analysis of covariance (ANCOVA).

Results: The results indicated that positive couple therapy can improve empathy (P<0.01) and intimacy (P<0.01). It was also revealed that the effectiveness of positive couple therapy in empathy and marital intimacy lasted until the follow-up phase (P<0.01).

Conclusion: As evidenced by the results of the present study, it can be concluded that positive couple therapy is effective in empathy and intimacy; therefore, it can be of great help to infertile couples.

Keywords: Empathy, Couple therapy, Intimacy, Infertility.

Background

Infertility is a major life event that creates excessive stress among infertile couples. This complicated, unpredictable, and uncontrollable condition can lead to a serious crisis in the life of infertile couples. (1). Based on the related studies, psychological factors have a significant role to play in infertility which brings about some psychological consequences, such as decreased intimacy, empathy, and positive feelings towards spouse (2). Intimacy is one of the needs of marital life and one of the distinguishing characteristics of a successful and happy marriage. The depth of intimacy that people create in their relationship depends greatly on their ability to communicate accurately, effectively, and clearly with their thoughts, feelings, needs, and desires. Therefore, effective communication is the first step in the process of creating or increasing intimacy in any relationship (3).

The positive feeling of couples about each other is one of the factors that play an important role in family health and well-being, as well as couples’ adjustment in marital life (4). Couples expect happiness, satisfaction, and intimacy in their married life; therefore, more important than marriage itself is success in marital relationship, as well as intimacy and positive feelings among couples (5). It can be stated that one’s emotions can affect intimate relationships, such as the relationship between couples, as well as their emotional belonging and satisfaction. Different studies have pointed to a close relationship between negative affect and marital incompatibility (6).

Infertility has always been associated with psychological factors that cause marital conflicts and disputes, reduce the satisfaction and empathy of couples, prevent the normal functioning of marital life, and sometimes lead to divorce and separation (7). Empathy is an inherent characteristic of human beings, and the emotional response of an individual to the emotional reactions of others is an essential element for successful interpersonal functions. The concept of empathy is of utmost importance in different fields of psychology. In particular, empathy and acquisition are essential components of marital satisfaction and the quality of relationships between couples (8).

Increasing infertility and marital dissatisfaction and the demand of spouses for fruitfulness and improving marital relationships are indicative of a critical need for spouses to have specialized interventions and training in this field (9). To improve empathy and marital intimacy, researchers have used several approaches, such as cognitive-behavioral intervention and teaching emotion-focused and solution-focused problem-solving methods (10), religious approach, as well as family therapy based...
on mindfulness and metacognition (11). In addition, several other approaches have been proposed to treat the problems of families and couples.

Nowadays, different approaches of couple therapy and family therapy have been developed to reduce conflicts and communication disturbances between couples. Couple therapy aims to help couples to adapt more readily to current problems and learn more effective methods of communication. Positive couple therapy is one of the effective approaches of couple therapy in solving couples' marital problems (12). At the beginning of this century, psychologists and psychological issues have focused more on positive human experience and what makes a moment better than other moments.

It has been also stated that the emotional quality of current experience is the basis of positive psychology (13). Positive psychology focuses on three areas of human experience to help them define the field and orientation of positive psychology. At the mental level, positive mental states, such as hope, optimism, and positive emotions, such as happiness, satisfaction with life, peace, and intimacy, are emphasized. At the individual level, close attention is devoted to the characteristics of individuals, such as courage, loyalty, honesty, patience, and wisdom, while at the social level, the main focus is shifted to progress, creativity, maintaining a positive attitude, and civil virtues (14).

Positive psychology emphasizes the positive processes, virtues, and abilities of individuals, and recommends therapists to pay attention to the positive processes of their clients. This view encourages individuals to apply their abilities and characteristics in the main domains of their lives (e.g., work, parenting, and love) and considers this a duty. Positive psychology works on an individual's attitudes toward problems (12).

Infertility is a very stressful life experience that could adversely affect psychological factors in marriage. This highlights the necessity of psychological considerations to reduce emotional strain and pressure among these couples. It is of paramount importance to conduct studies in this field and many studies have emphasized the necessity of a professional psychological counselor in the cycle of infertility treatment. In addition to the aforementioned issues, research in this field will help to develop knowledge about infertility and its consequent problems in both physical and psychological dimensions, problems related to infertile couples, recognition of psychological constructs and factors affecting infertility, as well as psychological consequences affected by infertility. The results of the present study can be of great help to therapists, counselors, and physicians.

Those involved in infertile couples' affairs can diagnose and treat psychological factors and conditions causing psychological stress in infertile couples to take necessary measures to reduce these pressures and improve psychological factors. Furthermore, the results of this study are of substantial help to infertile couples in the enhancement of their information about the psychology of infertility, as well as empathy, positive feelings towards spouse, and intimacy. Moreover, medical, psychological, academic, and research centers will benefit from these results to improve the physical and mental condition of infertile couples.

Objectives
Marital intimacy and empathy can be seemingly improved by the efforts made to control intrafamily conflicts and increase family support through emotional development, reduction of negative emotions, and behavior organization using the positive couple therapy model. In light of the aforementioned study, the current study aimed to determine the effectiveness of positive couple therapy in empathy and intimacy of infertile couples.

Methods
This quasi-experimental study was conducted based on a pre-test, post-test, control group design with follow-up. The statistical population of this study included all infertile couples referred to Baran and Rah e Sabize Zendegi counseling centers in Shiraz in 2019. After obtaining permission from medical centers, the research subjects were selected by convenience sampling method. The sample size was estimated at 30 cases (n=15 in each group) by G^2Power software (version 3.1) (no need for formula and by specifying the type of statistical tests, the test power was 0.80, the effect size was 0.40, and the error level was α= 0.05). The selected participants were randomly assigned to two groups of 15 (positive couple therapy and control group. The three-month follow-up period was selected since people might not cooperate in longer-term follow-ups such as six months and one year. The age range of 30-40 years was selected since the majority of people who refer to counseling centers fall in this age range.

The inclusion criteria were as follows: informed consent to participate in the study, the age range of 30-40 years, minimum diploma education, being treated for infertility of one of the couples (male or female), not using psychotropic drugs at least two weeks before the start of treatment until the end of group sessions, and the absence of severe physical or mental illnesses. On the other hand, the exclusion criteria entailed absence from two consecutive sessions or three non-consecutive sessions, lack of cooperation with the therapist, and incomplete assignments given by the therapist.

The ethical considerations of this study were as follows: All subjects received written information about the research and participated in the research if they wished. People were assured that all information was confidential and would be used for research. To respect privacy, the participants' names and surnames were not registered. This article was extracted from a Ph.D. dissertation in counseling with the code of ethics (IR.IAU.TNB.REC.1399.007) approved by the Research Ethics Committees of Islamic Azad University- North Tehran Branch (23/12/2020).

Marital Intimacy Questionnaire
This questionnaire was prepared by Walker and Thompson in 1983 to measure love and intimacy (15). This tool consists of 17 items that are rated on a 7-point Likert scale (1=never up to 7=always), yielding a score of 17-119 with higher scores indicating higher marital intimacy. They confirmed the validity of the instrument by factor analysis method and reported its reliability in different studies using Cronbach's alpha method from 0.91-0.97 (15). In Iran, Etemady et al. (16) reported the Cronbach alpha coefficient of 0.96 for this scale. In the present study, Cronbach's alpha coefficient of this questionnaire was calculated at 0.79.

Marital Empathy Scale (MES)
Marital empathy scale was developed by Julie and Farrington in 2006 to measure marital empathy (17). This scale consists of 20 materials and 2 subscales. The items are rated on a 5-point Likert scale (1=totally, I disagree, 2 =I disagree, 3 =I neither disagree nor agree, 4 =I agree, and 5 =fully agree). The minimum and maximum scores of this scale are 20 and 100(20-33: low empathy,33-66: moderate empathy, >66: high empathy. It is noteworthy that in this scale, instead of the word "friends", the word "wife" is used (17). Stefaniak, Bist-Richard, Ambrosio, and Ben Saleh (18) obtained Cronbach's alpha reliability coefficient of 0.71 and 0.84 for the 2-factor model of cognitive empathy and emotional empathy, respectively. In the study by Rajabi et al. (19), the Cronbach's alpha reliability coefficient of this scale was reported as 0.90 and its convergent validity coefficient was obtained at 0.65 (P<0.01). In the present study, Cronbach's alpha coefficient of this questionnaire was calculated at 0.84.

Table 1. Positive couple therapy training program

<table>
<thead>
<tr>
<th>Session</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>Familiarity of group members with each other and instructor/ explanation of the psychology and positive educational package/ Setting group rules</td>
</tr>
<tr>
<td>Second</td>
<td>Firstly, the previous meeting was reviewed and explained, and the following were then explained: accepting yourself with all positive and negative points, the value of human beings, believing in oneself, loving oneself and pointing to the uniqueness of everyone, expressing the importance of peace and strength of the foundation of the family, the importance and impact of peace in life, group discussion about happiness and its importance/ familiarity with how to form thinking/ familiarity with negative thoughts and ways to moderate them/ group discussion about the effect of positive thinking on people's health and longevity/ as well as the ways to increase positive thinking. Task: Couples were asked to provide a list of positive and negative points and how important they were to relax.</td>
</tr>
<tr>
<td>Third</td>
<td>Firstly, the last meeting and its assignment were discussed/ Identifying positive thoughts in the home environment and strengths of couples' relationship/ Providing exercises in the form of writing positive memories about marital life/ Psychological immunization in the form of positive exercises/ Your practice at its best and following the path of success, paying attention to positive traits, positive points, gifts, skills, talents, and abilities, familiarizing subjects with positive effects and success, thought and its inhibitory factors. Task: Couples were asked to make a list of abilities and positive thoughts.</td>
</tr>
<tr>
<td>Fourth</td>
<td>Firstly, the prevision session and its assignment were discussed/ Definition of gratefulness/ Reviewing couples' experiences about gratitude/ practicing acts of appreciation and its impact on happiness/ Exercises related to current positive emotions (happiness, passion, ecstasy, calmness, pleasure, warmth, and vitality)/ practice about the best possible self in the future, expressing the relationship between thoughts and emotions, examining the role of thoughts and beliefs in emotions and behaviors, analysis methods of everyday events, discussing their attitudes and how to change them. Task: Couples were asked to perform gratitude exercises between two sessions and list the arguments that occurred to previous thoughts and beliefs.</td>
</tr>
</tbody>
</table>
Initially, the prevision session and its assignment were discussed. Assessing couples’ levels of affection to improve interpersonal ability. Discussion and practice about affection and kindness as a moral virtue or personality strength, how to communicate it with happiness, and teaching how to rationally evaluate life events with emphasis on personal responsibility, accepting their share in each event, referring to the type of relationship and its roots, the correct method for dealing with problems and how to solve them (teaching how to communicate effectively), exercises related to positive emotions about the future (faith, trust, confidence, hope, and optimism). Exercises related to self-confidence/ entering laughter into life and reviewing the framework of increasing happiness/ entering desirable habits (such as exercise). Task: Practicing acts of affection and training logical assessment of life events with an emphasis on personal responsibility, self-confidence exercises, as well as performing desirable habits (such as exercise).

Firstly, the prevision session and its assignment were discussed. Familiarity with the benefits of establishing positive relationships in life/ practice about training positive communications in welfare and active-constructive feedback/ relaxation training using Fast Benson method/ exercises related to a snowball effect and its relationship with optimistic thinking, hope and decision making/ discussion about the obvious strengths assessed in real cases/ positive education from by challenging negative thoughts/ changing mental images/ using constructive language, revising beliefs, and assessing humor as an existential human need, practicing optimism, studying the effects and results of helping and serving others, expressing at least 5-10 positive experiences and memories for the members of the group. Assignment: practicing positive communication and relaxation practice. The couples were also asked to individually compile a list of humor, optimism, and their effects.

Firstly, the prevision session and its assignment were discussed. Definition of optimistic thinking/ discussion and practice about the value of optimism in future happiness/ providing methods to increase optimistic thinking/ a clear and simple definition of hope as a targeted process/ discussing how hope can be used to increase happiness in the future/ group discussion about the role of hope in the home environment and its impact on health/ physical, mental, emotional, and social/ teaching attributional styles were optimistic and pessimistic and the nature of intimacy and happy ways of living and guidelines for increasing happiness and intimacy were presented. Assignment: Optimistic thinking practice, and couples were also asked to practice everything they learned in the session about the ways to live happily ever after.

Firstly, the prevision session and its assignment were discussed. Training positivity by institutionalizing positive thinking strategies in life, continuity in practicing positive thoughts, opportunities of positive thinking through coping and adapting to problems that we cannot solve, as well as expressing the richness of the inner life, defining personality strengths, and moral virtues/ identifying personality strengths by couples themselves/ training to stop negative thoughts by identifying them/ defying negative thoughts, challenging them, and examining the necessity of having a goal in different areas of life, choosing realistic and fulfillable goals, pragmatic goal setting, the necessary motivation for pursuing the goal, re-evaluating the goal, choosing multiple paths. Task: The couples were asked to practice positive thinking, stop negative thoughts, and realistic thinking.

The data were analyzed in SPSS software (version 22) using descriptive statistics (mean and standard deviation) and inferential statistics (analysis of covariance).

Results

The mean age scores of subjects were reported as 34.8±7.9 and 35.1±8.2 in the experimental and control groups, respectively. There was no significant difference between the two groups in terms of age.
Table 1- Mean and standard deviation of research variables

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Groups</th>
<th>Descriptive Indicators</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>Experimental</td>
<td>Pre-test</td>
<td>52.53</td>
<td>9.74</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Post-test</td>
<td>66.11</td>
<td>11.06</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Follow-up</td>
<td>65.23</td>
<td>10.07</td>
</tr>
<tr>
<td>Control</td>
<td>Pre-test</td>
<td>52.01</td>
<td>10.74</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>53.20</td>
<td>11.32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>53.43</td>
<td>10.11</td>
<td></td>
</tr>
<tr>
<td>Marital Intimacy</td>
<td>Experimental</td>
<td>Pre-test</td>
<td>52.87</td>
<td>11.17</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>61.90</td>
<td>14.12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>62.71</td>
<td>14.44</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>Pre-test</td>
<td>51.13</td>
<td>10.60</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>52.20</td>
<td>11.11</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td>52.37</td>
<td>11.24</td>
<td></td>
</tr>
</tbody>
</table>

The results of the Shapiro-Wilks test illustrated that the significance levels of normality statistics were greater than 0.05 (P<0.05); therefore, the data distribution is normal, and parametric multivariate covariance analysis can be used for the achievement of reliable results. The results of the Box’s M test demonstrated that since the significance level was greater than 0.05, the research data did not question the assumption of the equality of variance-covariance matrices and this assumption has been observed. Since homogeneity of variance-covariance matrices was established, parametric multivariate covariance analysis can be used. The results of Levene’s test showed that since the default homogeneity of variance error is established, parametric multivariate covariance analysis can be used.

The results of multivariate covariance analysis indicated that Wilks Lambda was significant (P=0.017, F=5.679). The results suggested that there was a significant difference between the experimental and control groups in terms of post-test and pre-test; accordingly, it can be stated that there is a significant difference in at least one of the dependent variables. Moreover, the Eta coefficient illustrated that 78.2% of the difference between the two groups is related to experimental interventions (positive couple therapy).

Table 2- One-way covariance analysis test in multivariate covariance analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Source</th>
<th>SS</th>
<th>Df</th>
<th>MS</th>
<th>F</th>
<th>P</th>
<th>Eta²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>Group</td>
<td>136.35</td>
<td>1</td>
<td>136.3</td>
<td>107.92</td>
<td>0.001</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>16.42</td>
<td>27</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Intimacy</td>
<td>Group</td>
<td>135.08</td>
<td>1</td>
<td>135.0</td>
<td>116.81</td>
<td>0.001</td>
<td>0.9</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>15.02</td>
<td>27</td>
<td>1.15</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As depicted in Table 2, by eliminating the effect of the pre-test variable, the experimental and control groups significantly differ in empathy and intimacy. The significant level obtained for empathy and intimacy is smaller than the significance level of 0.017 obtained calculated by the Bonferroni correction. Consequently, according to the obtained averages, it can be concluded that with 95% confidence, empathy and intimacy of the experimental groups have changed, compared to those in the control group.

Table 3. Results of Bonferroni follow-up test on empathy and marital intimacy
As displayed in Table 3, the scores of empathy in the positive couple therapy and the post-test stage were higher than those in the pre-test (P<0.001). The results pointed out that empathy in the follow-up stage was significantly different from the pre-test stage (P<0.001). It was also demonstrated that the scores of marital intimacy in the positive couple therapy and the post-test stage were higher than those obtained in the pre-test (P<0.001). The results showed that marital intimacy in the follow-up stage was significantly different from the pre-test stage (P<0.001).

Discussion

The present study aimed to determine the effectiveness of positive couple therapy in the empathy and intimacy of infertile couples. The results showed that positive couple therapy had a significant effect on empathy and intimacy. The findings of this research were in line with those reported by Chan and Tan (12), Najarpourian et al. (13), Fotohi et al. (20), and Abbasi et al. (21). In explaining this finding, it can be argued that positive couple therapy can affect empathy and intimacy between couples and improve their well-being. Positive couple therapy can increase empathy among infertile couples and provide solutions that bring couples closer together and resolve their problems.

Positive couple therapy strengthens emotional capabilities, such as calming the partner down, empathy, listening well, accepting deficiencies, and compensating them with solutions (12). Couple therapy helps couples to understand each other by recognizing themselves and mitigates their conflicts, differences, and deficiencies by focusing on positive thinking. The purpose of positive couple therapy intervention is to introduce the positive points of the parties to each other, give a positive view of all the events of life, and teach each other appropriate behavioral skills. Positive couple therapy can help infertile couples achieve individual abilities to effectively deal with situations that occur in marital life and abilities that can manage problems and unpleasant events in life (22).

Furthermore, in explaining the effectiveness of positive couple therapy, it can be argued that positivity means having optimistic attitudes, thoughts, and behaviors in life, as well as paying attention to positive aspects of life and ignoring the negative ones. Positivity considers its ultimate goal to identify the ways which improve marital intimacy in infertile couples (23). Therefore, by increasing positivity and avoiding negative thoughts, couples’ focus in life is on the positive aspects of life and the problems of marital life do not pose a challenge to the couples.

Among the notable limitations of the present research, we can refer to the mere inclusion of married students; therefore, generalization to other populations must be made very cautiously. Moreover, participation in the study was voluntary; accordingly, the results may have been affected by social desirability. In addition, the use of two educational methods may have caused interference in the effect of educational programs. Furthermore, it is a quasi-experimental study that does not have the benefits of real pilot projects. Moreover, data was collected by self-reporting scales; therefore, the other limitation of this research is related to measurement since these reports are susceptible to distortion due to unconscious defences, bias in response, personal introduction methods, and generally social desirability.

Considering the limitations of intergroup research methods (experimental research), it is suggested that in the future, researchers use single-subject designs to investigate positive couple therapy. Considering the effectiveness of the positive couple therapy method in marital communion of infertile couples, it is suggested that these two educational programs be taught to counsellors, as well as family and marriage psychologists.

Conclusion

As evidenced by the results of the current study, positive couple therapy is effective in the empathy and intimacy of infertile couples; therefore, this approach can be used to alleviate the problems faced by infertile couples.

Conflicts of Interest

The authors declare that they have no conflict of interest.

References


### Table 3

<table>
<thead>
<tr>
<th>Variables</th>
<th>Steps</th>
<th>Mean Difference</th>
<th>Standard Error</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Empathy</td>
<td>Pre-test</td>
<td>Post-test</td>
<td>4.67</td>
<td>0.66</td>
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<tr>
<td></td>
<td>Follow-up</td>
<td></td>
<td>4.98</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>Follow-up</td>
<td>0.07</td>
<td>0.58</td>
</tr>
<tr>
<td>Marital intimacy</td>
<td>Pre-test</td>
<td>Post-test</td>
<td>4.37</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>Follow-up</td>
<td></td>
<td>4.43</td>
<td>0.54</td>
</tr>
<tr>
<td></td>
<td>Post-test</td>
<td>Follow-up</td>
<td>0.04</td>
<td>0.54</td>
</tr>
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</table>