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The Effect of Effective Interpersonal Communication Training on Psychological Symptoms (Stress, Anxiety, Anger, and Depression) in Incompatible Couples

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Abstract

Background: *One of the causes of marital problems is the lack of communication skills between couples; communication encompasses the entire life of a person. Life begins with the beginning of communication and ends with its termination. This study was conducted with the aim of investigating the effect of effective interpersonal communication training on psychological symptoms (stress, anxiety, anger, and depression) in incompatible couples referring to counseling centers.*

Methods: *This study was a quasi-experimental pre-test and post-test study with a control group. The sample size was 40 people who were selected from the aforementioned population using convenience sampling. 20 people were assigned to the experimental group and 20 to the control group. The research tools used were psychological symptom questionnaires. The experimental group received effective interpersonal communication training weekly for 8 1.5-hour sessions. After collection, the data was entered into SPSS 18 and analyzed using descriptive and analytical statistics.*

Results: *The results confirm that there is a significant difference between the experimental and control groups in terms of the post-test dimensions of psychological symptoms (stress, anxiety, anger, and depression) compared to the pre-test control. Accordingly, it can be said that a significant difference has been created in at least one of the dependent variables, namely the dimensions of psychological symptoms (stress, anxiety, anger, and depression), and the effect coefficient shows that 66.9% of the difference between the two groups is related to the experimental intervention. Therefore, communication skills training helps the individual to have a better understanding of himself and to better adapt to others. It is also important in personal and professional communications. This skill helps a person express their opinions, beliefs, desires, needs, and emotions and ask for help and guidance from others when needed. The skill of asking for help and guidance from others in times of need is an important factor in a healthy relationship.*

Conclusions: *Based on the results of the study, it can be stated that interpersonal skills training plays an important role in understanding each other and appropriate planning should be done to implement these trainings for couples.*

Keywords: Effective interpersonal communication, Psychological symptoms, Stress, Anxiety, Anger, Depression.
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Introduction

The family is a social system and one of the pillars of society, in a way the smallest cell of society. The relationships between family members, including the relationship between couples and the reduction of their marital problems, can not only provide the basis for satisfying the needs and psychological development of couples and a sense of happiness. In addition, in the shadow of a healthy relationship with the satisfaction of couples, facing the problems and challenges of life is easier, and healthy and useful children are raised and handed over to society; Marital problems arise due to failure in love and are a response to existential problems. The accumulation of psychological pressures that weaken love, the gradual increase in fatigue and monotony, and the accumulation of small resentments contribute to the emergence of marital problems[1], one of the factors that can be diagnosed along with the psychological and mental problems of incompatible couples is psychological symptoms. This condition is a type of mental disorder in which the patient's activities are severely reduced and, in fact, he will not have the motivation to do many things. The person is distracted, his energy and life skills are reduced, and his concentration is also greatly reduced. Sometimes he is aggressive and sometimes hopeless. The feeling of guilt in these people is very strong. In addition to the fact that the patient is left behind in his goals in life and causes a decrease in social and productive activities, this also deals a great blow to the economy of the society. In fact, this disorder manifests itself in a set of symptoms (symptoms) that, based on the quantity, quality, and duration of these symptoms, can be determined to indicate that the individual is suffering from one of the types of distress[2].

Morris et al.[3] have shown that worry has a significant impact on depression and its duration. Sometimes couples are ineffective in communicating and need to learn skills to express emotions and solve problems effectively. Although maladaptive interactions may be due to a lack of skills, in many cases it happens that couples are frustrated by the lack of satisfaction of their needs. For example, a couple who desires intimacy and whose desire is not satisfied may behave in a weak way over time. This problematic behavior in communication is not a lack of skills, but a maladaptive response to unmet personality needs. Spouses who tend to respond to negative behavior with negative behavior and vice versa for positive behavior will find that, regardless of the factors that contribute to the initial form or conflict, when

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spouses become dissatisfied with the relationship, a self-perpetuating process is created, which tends to have difficulty continuing. This occurs in the cognitive-behavioral aspects of emotion[4]. Behaviorally, this can be seen in conversations where a husband says something negative to his wife and his wife responds negatively. Cognitively, when a wife feels that her husband is not feeling well, she makes more effort to behave negatively, to make negative attributions about her husband's behavior. Emotionally, when spouses behave negatively towards each other, they come to think negatively about each other. Each may create an emotional salience with slightly negative emotions and feelings towards their spouse. These negative feelings then increase the likelihood of subsequent negative behavior and cognition. In addition to the above, other factors can be mentioned, including irrational beliefs and feelings in areas such as the importance of relationships, the importance of family, friends, and gender roles, which reduce satisfaction and increase conflicts[5].

In this regard, we can mention the research of Mansouri et al., who studied the effect of effective interpersonal communication skills on the level of psychological adjustment and marital reluctance in people participating in premarital psychology classes in Isfahan. The results showed that there was a significant difference between the two control and experimental groups as a result of the intervention of effective interpersonal communication skills in cognitive, social, behavioral, emotional, sexual and marital reluctance aspects[6]. In a study, Sahami examined the effect of effective interpersonal communication skills on marital reluctance of couples on the verge of divorce. The results of this study showed that there is a positive and significant relationship between effective interpersonal communication skills in couples and their marital satisfaction and a decrease in divorce requests[7]. In a longitudinal study, Reben et al. studied 39 women and 39 men who had participated in a PREP relationship training program. The results showed that men's post-test scores decreased compared to their pre-test scores on negative communication, reduced their risk of marital problems, and increased their level of intimacy[8]. Joule taught effective interpersonal communication skills to couples who had difficulty interacting with each other, showed psychiatric symptoms, and were dissatisfied with their married life. The results showed that this effective interpersonal communication skill led to significant improvements in the couple relationships, their ability to cope with problems, and their mental health[9]. One of the causes of marital problems is the lack of communication skills between couples; communication encompasses the entire life of a person. Life begins with the beginning of communication and ends with its termination. A person is born in the lap of communication and meets his needs of whatever kind. He survives, grows, and evolves with the help of communication. Human happiness and well-being depend largely on how he communicates with others. Communication is the choice of a good message and the wise expression of oneself[10].

According to Dors, in a face-to-face relationship, seven percent of the emotional content is conveyed through spoken messages, thirty-eight percent through vocal tone, and fifty-five percent through gaze, facial expressions, and body language. When the content and quality of communication are inconsistent, the nonverbal layer is always more effective[11]. The main purpose of marriage is communication. Communication allows a couple to discuss and exchange ideas and become aware of each other's needs. In fact, couples' relationships are designed to satisfy all levels of needs. This is why the most common problem reported by unhappy couples is the failure to establish a relationship. Although communication difficulties are not the only cause of marital conflict, they are a hallmark of troubled relationships and appear to exacerbate existing problems. Persistent turmoil in relationships often leads to steps toward divorce and separation[12,13]. Therefore, given the prevalence of marital incompatibility between couples, the aim of the present study is to answer the question of whether effective interpersonal communication training has an effect on psychological symptoms (stress, anxiety, anger, and depression) in incompatible couples.

Materials and Methods

The research design is semi-experimental and of the pre-test-post-test type with a control group. The statistical population in this study included all couples with incompatible spouses who referred to counseling centers (health and treatment network) in Kermanshah city in 2024, who referred to family counseling centers of the health and treatment network during the first six months of 2024, and who had marital problems during these six months. In these six months, those who had a file under the supervision of the center's psychologist numbered about 94 people. From the statistical population, 40 people were selected using a convenient and purposeful sampling method who met the necessary conditions to cooperate with this research and based on the counselor and psychologist's maladjustment and personality assessment test, and were divided into two experimental and control groups (20 people in each group in the experimental group and 20 people in the control group). After selecting the sample, the questionnaire was given to the subjects at the same time, and the subjects were asked to complete the questionnaire with great care after receiving explanations about the research and how to answer the questions. In this quasi-experimental study, pre-test and post-test were used for the two experimental and control groups. A quasi-experimental intervention (effective interpersonal communication skills) was implemented on couples with incompatible spouses in the experimental group, while couples with incompatible spouses in the control group did not receive any type of therapeutic intervention. Meaningful sessions were in the form of practical training and were held in eight 90-minute sessions, two sessions per week. The planning of the sessions is such that the first 30 minutes of the session are dedicated to presenting the specific topic of the relevant session, and the remaining 60 minutes are presented as a group discussion about the group members' issues in relation to the educational materials, as well as the implementation of specific techniques of this approach (Table 1). The entry and exit criteria for the subjects were those who were married and were randomly selected in the city of Kermanshah based on the counselor and psychologist's incompatibility and personality assessment test, and they also had a completely voluntary and optional desire to answer the research questionnaires. A

standardized questionnaire was used in this study: 1) Psychological Symptoms Questionnaire: This is a special questionnaire for identifying mental disorders in the general population, which was developed by Kessler et al. in 2003 in two forms with 10 questions and used in various studies. For identifying mood and anxiety disorders, the 10-item questionnaire is more effective. Scoring method: Each item is scored using 5 options (0=never to 4=always) and each of these options is scored based on a 5-point scale (zero for never and 4 for always), which is scored in a Likert format from never to always. Therefore, the highest score in 10 items is 40. Motlagh et al. validated the K10 questionnaire in a national study. They concluded that the K10 form is highly effective in identifying mood and anxiety disorders[14]. Sanjari et al.[15] in a research study found the reliability of the Kessler questionnaire to be 0.83 using Cronbach's alpha. In the present study, Cronbach's alpha was used to measure the reliability of this questionnaire, and the coefficients for psychological symptoms were 0.69. After determining the samples in the manner mentioned, questionnaires and answer sheets were prepared for the number of subjects in the experimental group and the control group. With the coordination made at the appointed time in the Health and Treatment Network Administration, with a general explanation of the work and justification of the individuals for participating in this test and research, they were asked to cooperate fully with the researcher and not to withdraw until the end of the period. Then, the pre-test questionnaires for psychological symptoms were distributed to the 40 people. After the pre-test, effective interpersonal communication training was given to the experimental group, which consisted of 20 people, and after the end of the sessions, a post-test was taken from both groups. In this study, effective interpersonal communication training was held in groups in several stages. After collection, the data were entered into SPSS18 and analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and analytical statistics (multivariate and univariate analysis of covariance).

Table 1. Content of effective interpersonal communication skills training sessions

Session	Session Description	Process and practice
First	Members getting to know each other, establishing communication (conducting a pre-test)	Questions asked about yourself: How do you define yourself? What are your values? What do you do when things are difficult? What are your pleasures? And...
Second	Identifying couples' unrealistic beliefs and expectations	What is communication? How do the actions you take make you feel? How do these actions help you deal with problems? Have these actions ever caused you problems?
Third	Eliminating misunderstandings resulting from wrong or different perceptions, replacing them with logical beliefs and expectations	The subjects were asked to describe what they had done in terms of communication and how they felt. Finally, they were taught a meditation technique and made part of their daily practice.
Fourth	Developing the skill of clearly, accurately, and effectively conveying and receiving each other's thoughts, feelings, and needs	Preparation for identifying the situation and conditions of the problem in question, accurately defining the problem, developing transfer skills, evaluating options, selecting the best solution, and implementing a review of solutions was explained.
Fifth	Developing empathetic understanding and listening skills	An explanation was given regarding love and how this word is associated with relationships and evokes a spiritual feeling. A feeling of harmony with God, salvation from selfishness, and love for others was discussed.
Sixth	Increasing positive behavioral exchanges and reducing punishment, understanding forgiveness and forgiveness	Explanation on forgiveness and who we are supposed to forgive? Forgiveness of those with whom we have no relationship, forgiveness of those with whom we have a relationship? And...
Seventh	Reducing problems and learning problem-solving skills, fear and faith, exploring experiences resulting from forgiveness	Explanation about moving away from hearts filled with doubt, and gaining certainty. Replacing fear and doubt with faith and belief. Questions on the subject of expression and then ending the session with a prayer for forgiveness.
Eighth	Reduction of psychological symptoms, anxiety and hopelessness Noticing positive changes resulting from relating and giving meaning to difficult experiences (post-test administration)	Helping people find meaning in what they perceive as unpleasant and gratitude. Explaining ways to give meaning to life and how the meaning of life is so strongly tied to connection that if intimacy and mutual connection are removed from life, enthusiasm and hope for many life experiences would be impossible.

Results

The results of Table 2 show that the mean (and standard deviation) of the total score of the psychological symptoms variable in the experimental group in the pre-test phase is 38.93 (and 27.16) and in the post-test phase is 53.58 (and 25.10). In the control group, the mean (and standard deviation) of this variable in the pre-test phase is 45.16 (and 24.33) and in the post-test phase is 38.47 (and 15.6).

Table 2. Mean and standard deviation of psychological symptoms by group and assessment stage

Variable	Research	Group number	Pre-test	Post-test
			Mean±standard deviation	Mean±standard deviation
Stress-Anxiety	Test	20	5.11±4.60	9.76±2.16
	Control	20	7.48±2.34	7.32±2.23
Anger	Test	20	9±7.56	12.16±4.95
	Control	20	8.97±6.84	5.46±3.73
Depression	Test	20	3.12±3.14	5.36±1.22
	Control	20	5.13±4.65	4.19±0.71
Total Psychological Symptom Score	Test	20	38.93±27.16	53.58±25.10
	Control	20	45.16±24.33	38.47±15.66

As can be seen in Table 3, Levine's hypothesis is confirmed in all research variables; due to the randomness of the two groups and the high sample size, the analysis of covariance method can be used to analyze the hypotheses.

Table 3. Results of Levine's test on the assumption of homogeneity of variance errors

Dependent variables	F-statistic	Degree of freedom 1	Degree of freedom 2	Significance level
Stress	0.328	1	38	0.570
Anxiety	0.398	1	38	0485
Depression	2.452	1	38	0.933
Anger	1.749	1	38	0376

The results of Table 4 indicate that Wilks' Lambda (P-value=0.001) and (F=4.538) are significant. The results confirm that there is a significant difference between the experimental and control groups in terms of the post-test dimensions of psychological symptoms with the pre-test control. Accordingly, it can be said that a significant difference has been created in at least one of the dependent variables, namely the dimensions of psychological symptoms, and the impact coefficient shows that 66.9 percent of the difference between the two groups is related to the experimental intervention.

Table 4. Results of post-test multivariate tests of psychological symptoms

Test type	Value	F-test	Significance level	Impact factor	Statistical power
Pillai effect	0.169	4.538	0.001	0.669	0.942
Wilks lambda	0.831	4.538	0.001	0.669	0.942
Hotelling effect	0.203	4.538	0.001	0.669	0.942
Largest root of	0.203	4.538	0.001	0.669	0.942

The results of the multivariate analysis of covariance (MANCOVA) in Table 5 show that effective interpersonal communication training (controlling the effect of the pre-test as a covariate on the post-test) had a significant effect on increasing each of the dimensions of psychological symptoms including stress (F=13.43, P-value=0.001 and Eta=0.621), anxiety (F=17.31, P-value=0.004 and Eta=0.544), anger (F=21.54, P-value=0.012 and Eta=0.572), and depression (F=15.86, P-value=0.002 and Eta=0.645) in the post-test stage. Therefore, this hypothesis It is confirmed that "training in effective interpersonal communication has an effect on reducing the dimensions of psychological symptoms in women with incompatible spouses."

Table 5. Results of between-subject effects of multivariate covariance in the post-test of psychological symptom dimensions

Dependent variables	Sum of squares	df	F-statistic	P-value	Impact coefficient	Statistical power
Stress	88.57	1	13.43	0.001	0.621	0.876
Anxiety	102.59	1	17.31	0.004	0.544	0.791
Anger	44.604	1	21.54	0.002	0.572	0.693
Depression	58.543	1	15.86	0.002	0.642	0.853

Discussion

The results confirm that there is a significant difference between the experimental and control groups in terms of the post-test dimensions of psychological symptoms compared to the pre-test control. Based on this, it can be said that a significant difference has been created in at least one of the dependent variables, namely the dimensions of psychological symptoms, and the impact coefficient shows that 66.9% of the difference between the two groups is related to the experimental intervention. In explaining the result of this hypothesis, it can be said that psychological symptoms are a mental illness that causes a feeling of sadness and discomfort and loss of interest. Most people feel sad, depressed and sad at times. Feeling depressed and sad is a natural reaction of the body to the problems of life and the loss of things and people we love. But when this feeling of intense sadness, hopelessness, helplessness and worthlessness lasts more than a few days or weeks, you have depression. Depression affects the way you think, feel and behave. Depression can cause a variety of physical and mental illnesses. Distraught individuals may be unable to perform daily tasks and may even feel that life is not worth living. Contrary to popular belief, depression is not just a weakness or disability and cannot be easily ignored, but rather a chronic disease like diabetes, high blood pressure, etc. that must be treated. Most people with psychological symptoms improve after taking medication, counseling sessions, or other forms of treatment. In general, people who suffer from mental disorders experience psychological symptoms that can be very distressing and require various treatments, including effective interpersonal communication training, which is an important underlying factor for achieving liberation. Because it is an effective and powerful way to turn off and stop the pressures of the world or the individual's own mental pressures. Therapies based on effective interpersonal communication have been reported to be highly effective in treating some clinical disorders and physical illnesses because they address both physical and mental dimensions. In the last two decades, a large number of interventions and therapies based on effective interpersonal communication have emerged, emphasizing sitting exercises, walking meditation, and some yoga practices. These interventions include focused attention training, in which the individual focuses their attention on a specific stimulus, such as breathing, bodily sensations, etc., for a specific period of time.

It is a very effective way to reduce psychological symptoms and relax the body and mind. This method works because there is a connection between muscle tension and mental tension. When we feel stressed mentally, our muscles automatically tense and contract. The opposite is also true. Therefore, learning a way to release tension in our muscles can also help us relax mentally. For many of us, effective interpersonal communication means lying down in front of the TV at the end of a stressful day. But this does little to reduce stress. To effectively manage stress, we need to activate the body's natural relaxation response. We can achieve this calmness through effective interpersonal communication techniques such as deep breathing, muscle relaxation, and mental imagery. Incorporating these activities into our lives can help reduce daily life stress and generate energy and good mood. On the other hand, the findings of this study are in line with the research of Ixey et al.[16] and Kashdan et al.[17]. They showed in their research that people with high anxiety sensitivity reported fewer anxiety symptoms when their mindfulness (paying attention to and being aware of what is happening in the present moment) was also high. It can also be stated in explaining this result that constantly monitoring anxiety-related feelings without judgment, without trying to escape or avoid them, reduces the emotional reactions that are usually triggered by anxiety symptoms.

On the other hand, it can be stated that training in mindfulness-based techniques, by encouraging individuals to repeatedly practice flexible attention to neutral stimuli and intentional awareness of the body and mind, frees those with anxiety disorders from preoccupation with threatening thoughts about performance, and by increasing the individual's awareness of present-moment experiences and redirecting attention to the cognitive system and more efficient information processing, reduces anxiety and physiological tension in the individual. Finally, it should be acknowledged that the findings of this study are in line with the research of King et al.[18], In their research, they showed that increasing attention and awareness of emotions and positive action tendencies are positive aspects of mindfulness, and mindfulness training increases non-judgmental feelings and helps with awareness of emotions and their acceptance. This finding is also consistent with the findings of the research of Kashfin Saburi[19]. They showed in their research that mindfulness leads to the regulation of emotions and the reduction of emotional reactions in anxiety-provoking social situations. Therefore, in this hypothesis, it was shown that effective interpersonal communication training, considering the average psychological symptoms of the incompatible couples in the experimental group compared to the average of the control group, has improved their psychological symptoms. According to the results of the study, it can be stated that effective interpersonal training plays an important role in reducing the psychological symptoms of incompatibility between couples. It is suggested that this training be provided on a broader level to people on the verge of marriage, such as students, in workshops and in premarital counseling and marriage counseling centers, and that studies be conducted in other countries and other provinces and compared with each other.

Ethical Considerations

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Conflict of Interest

The authors of this article declare that they have no conflict of interest.

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