



RESEARCH ARTICLE / ARAŞTIRMA YAZISI

Effect of Psychodrama on Fibromyalgia Patients' Pain Levels, Quality of Life, and Skills of Expressing Emotions

Fibromiyalji Tanılı Bireylerin Ağrı Düzeyleri, Yaşam Kaliteleri ve Duyguları İfade Etme Becerileri Üzerinde Psikodramanın Etkisi

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Abstract:

This study aimed to explore the effectiveness of psychodrama group psychotherapy on fibromyalgia patients and improve the physical and psycho-social well-being of patients by enabling them to develop awareness about the psychological origins of their pain, gain skills to express emotions, and externalize emotions. The study employed the experimental design without a control group. The participants consisted of nine female fibromyalgia participants who were able to continue their participation in the psychodrama sessions. The Personal Information Form, the 36-Item Short Form Health Survey, the Visual Analogue Scale, and the Emotional Expressivity Scale were administered to collect the study data, and non-parametric measurements were performed. As a result, according to the study findings, at the end of psychodrama group therapy, the pain of group members with fibromyalgia decreased, whereas their ability to express emotions and their general quality of life increased.

Keywords: Fibromyalgia, Psychological Pain, Psychodrama, Expression of Emotions

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Öz:

Bu araştırmada FMS hastalarında psikodrama grup psikoterapisinin etkililiğinin sınanması ve üyelerin FMS'nin psikolojik kökenleri hakkında farkındalık geliştirmeleri, duygularını ifade etme becerileri kazanmaları ve yaşam kalitelerinin artması hedeflenmiştir. Bu araştırma, psikodrama oturumlarına katılan FMS tanılı 9 kadın üye ile gerçekleştirilen kontrol grupsuz deneysel desenli bir araştırmadır. Araştırmanın bulguları için Kişisel Bilgi Formu, SF-36 Yaşam Kalitesi Ölçeği, Visüel Analog Skala (VAS), Duyguları İfade Etme Ölçeği (DİEÖ) kullanılmış ve non-parametrik ölçümler yapılmış ve elde edilen verilere göre grubun ön test ve son test puanları arasında istatistiksel olarak anlamlı bir fark gözlenmiştir. Grup üyelerinin psikodrama oturumları sonunda, öncesine göre görsel ağrı analog düzeylerinde azalma gözlenirken yaşam kalitesi ve bunun alt boyutları olan fiziksel, sosyal işlevlerde ve rollerde, mental sağlık, canlılık ve genel sağlık algısında ve duygularını ifade etme becerilerinde pozitif yönde anlamlı artış tespit edilmiştir. Sonuç olarak, psikodrama oturumları sonunda FMS'li üyelerin ağrıları azalırken, duygularını ifade etme becerileri ve genel yaşam kaliteleri artmıştır.

Anahtar Kelimeler: Fibromyalji, Psikojenik Ağrı, Psikodrama, Duygu İfade Etme

Introduction

Psychological distress is considered to be the primary symptom of fibromyalgia, a rheumatological condition. Believed to be a subtype of psychosomatic disorders, FMS whose etiology has not been fully determined (Häuser, 2012; Yavuz, 2012) is a chronic pain disease that causes deterioration in the quality of life and economic, physical, psychological, social, and cognitive problems (Bergman, 2005). Many studies put forth that most patients with fibromyalgia have many psychological disorders, including depression, anxiety, somatization, and phobias (Bradly, 1989; Dunne & Dunne, 2012; Okifuji et al., 2000; Soran et al., 2008). Such studies show that interventions for effective treatment of the psychological symptoms of FMS are noteworthy.

Accompanied by widespread body pain and many other symptoms, fibromyalgia whose etiology is still largely unclear (Friedberg, 2010; Hauser et al., 2015; Heidari et al., 2017) causes serious difficulties in individuals' daily life activities and their functional capacity and impairs their physical and emotional quality of life (Ataoglu et al., 2017). The lives of these patients, who go from doctor to doctor to find a cure for their pain, come to a dead-end in direct ways such as through prescriptions and nutritional supplements, or come to an end indirectly such as through inadequacies in business life and job loss (Altunkılıç et al., 2020; Spaecth, 2009; Wasseem & Hendrix, 2003). Since the effect of chronic diseases on individuals' quality of life cannot be denied, it is important to treat the diseases and their symptoms and to increase the quality of life. Life quality is a way of individuals perceiving and evaluating their own situations in life on the basis of the cultural structure and value system to which they belong (WHOQOL, 1995). A disease that is difficult to treat, such as fibromyalgia, can cause some physical and emotional deteriorations in many areas of life.

In many Middle Eastern countries such as Turkey, emotions are suppressed and ignored during the development process of the individual for sociocultural, familial, or other reasons. In fact, certain emotions do not even have a verbal equivalent (Lesser, 1985). Receding away from awareness and being sent to the unconscious over time, emotions turn into the destroyer of the individual's own physical and mental integrity from the protector of his or her own physical and mental integrity

(Mate, 2004). A child grows up with two different mechanisms that do not allow her emotions directly in the family (Bateson, 2000) and this prevents the child's ability to express her/his feeling. According to Koptagel (1996), people who do not learn to express their emotions, inner conflicts, and psychological needs verbally learn to reveal these emotions, conflicts, and needs with physical symptoms over time. Noting that the body is used as a means of communication in the expression of mental conflicts and anxieties, Koptagel (1996) the term "organ language" to describe this. The term "organ language" includes fibromyalgia pain, too, which is defined by symptoms such as the low back, head and neck pain, tingling in the legs, and bowel syndrome.

According to researches, with the increasing interest in the relationship between body and mind, group psychotherapy has gained importance for patients with various physical diseases in the medical field since the 1970s (Anderson & Winkler, 2007). There is increasing evidence that group psychotherapy is beneficial in alleviating the psychosocial sequelae and accompanying symptoms of medical illnesses, possibly influencing the true course of these illnesses (Bernard, 2004). There are also studies putting forth the beneficial effects of group psychotherapy on emotional stress, coping behaviors, quality of life, and pain control in patients with medical illnesses (Fawzy et al., 1993). In addition to these studies, group psychotherapy was found to offer peer support, a sense of shared experience, and an opportunity to learn from other group members and help others, and it is also more cost-effective than individual psychotherapy (Sherman et al., 2004).

Psychodrama is an action-based group psychotherapy method that opens the door to the treatment of group members' problems and their emotions, not only by talking but also by re-enacting them on stage (Blatner, 2002; Özbek & Leutz, 2011; Varma et al., 2018). Developed by Moreno, psychodrama is based on spontaneity, action, and creativity. The psychodrama sessions consist of three phases, namely the warm-up phase, the action phase, and the sharing phase. Since psychodrama is aimed at providing catharsis, developing insight, fully testing reality, developing logical thoughts, learning, and creating behavioral changes (Dökmen, 2005; Oğuzhanoglu & Özdel, 2005), it is believed that it will be effective in the recovery of fibromyalgia patients.

There is a limited number of studies exploring the use of psychodrama in psychosomatic and fibromyalgia treatments. A psychodrama study conducted with psoriasis patients revealed that not only the stress coping skills of the patients increased, but their depressive symptoms also decreased (Karadağ et al., 2010). Another psychodrama study conducted with individuals with psychosomatic disorders concluded that the pain levels of the group members decreased and they felt more relaxed due to psychodrama (Bal & Şener, 2015). In another psychodrama study conducted with women with fibromyalgia, it was determined that the participants' belief in recovery and self-confidence, as well as their ability to express suppressed emotions increased (Altınkılıç et al., 2020).

The main purpose of this study is to examine the effect of psychodrama group therapy on reducing pain, increasing quality of life, and expressing emotions in individuals with a diagnosis of fibromyalgia. In line with this purpose, determining the effect of psychodrama on group members diagnosed with fibromyalgia constitutes the main study problem. In summary, the study's aim is to reveal whether psychodrama has an effect on increasing the quality of life, ability to express emotions, and reducing the pain of members with a fibromyalgia diagnosis.

Methods

Study Design

Conducted with volunteer participants who met the fibromyalgia diagnostic criteria of the American College of Rheumatology (2010), the study employed the one-group pretest-posttest, one of the quasi-experimental designs. The quasi-experimental method aims to discover cause-effect relationships between variables. In the experimental model, the researcher manipulates the independent variables to achieve this goal, controls the external variables to maintain internal validity, and performs an analysis of the dependent variables (Büyüköztürk et al., 2015).

Participants

The study group was formed by the cooperation with the physical therapy and rehabilitation specialists of two different public hospitals and them referring 18 patients with fibromyalgia diagnoses for the study group. In the semi-structured pre-interview held with these members before the sessions, the presence of mental deficiency and psychotic disorder at a level that would prevent them from participating in this study was examined. The psychodrama experimental group was formed by using the convenience sampling method after meeting the criteria of volunteering for group sessions, deciding on a common day, and continuing the psychodrama sessions. The psychodrama sessions with 11 members were conducted by the researcher, who is also a psychodramatist, in a private psychotherapy center for 12 weeks. At the beginning of the process, the group members were informed about the importance of their attendance at the sessions, a written consent form was obtained and no fee was charged. Additionally, in order to distinguish the effect of psychodrama group, it was emphasized while selecting the participants that neither physical therapy nor some medicine for their fibromyalgia syndrome was permitted.

In line with this design, the determined scales were administered to the members of the experimental and control groups before the experiment. After the completion of the 12 sessions, the same measurement tools were administered as a posttest at the end of the last session. After the psychodrama sessions, follow-up measurements could not be administered due to the stay-at-home order because of the pandemic.

Instruments

The 36-Item Short Form Health Survey. The 36-Item Short Form Health Survey (SF-36) was used to assess the general quality of life of the group members. Developed by Ware and Sherbourne (1992), SF-36 was adapted into Turkish by Koçyiğit et al. (1999) after they conducted its validity and reliability works. For reliability, the internal consistency of the survey was examined and the Cronbach's alpha reliability coefficients for each scale were found to be between .73 and .76. Item-total score correlations were calculated between .48-.88. For validity, construct validity was examined by using the comparison method with a similar scale. Consisting of 36 items and evaluating both positive and negative aspects of health, the SF-36 has eight separate sub-dimensions. The sub-dimensions related to physical health are Physical Function (PF; 10 items), Social Function (SF; two items), Role Limitations due to Physical Problems (FR; three items), and Role Limitations due to Emotional Problems (ER; three items), whereas the sub-dimensions related to mental health are Mental Health (MH; five items), Vitality (V; four items), Pain (P; two items), General Health (GH; six items). The item-total score is calculated as 0 (worst health condition) as the lowest and as 100 (best health condition) as the highest (Üstün, 2010). In this study, SF-36 scores were assessed at the beginning and end of the psychodrama sessions to determine the participants' pain perceptions and quality of life.

Visual Analogue Scale. Pain perceptions of the group members were assessed using the Visual Analogue Scale (VAS). A measurement image is presented on a 10-cm line, where the respondents can rate fibromyalgia pain from 0 to 10, with anchor descriptors such as "no pain" (0) (the leftmost point) and "worst pain imaginable" (10) (rightmost point). The respondents mark a point between 0 and 10 according to the severity of the pain. In line with this marking, the pain level of the respondent (patient) is determined (Uyar & Aydın, 2007).

Emotional Expressivity Scale. Developed by King and Emmons (1990), the Emotional Expressivity Scale (EES) was adapted into Turkish by Kuzucu (2011). The scale has three sub-factors, namely positive emotions, negative emotions, and closeness. The response format for the scale is a 7-point Likert scale. High scores taken from the scale indicate a high tendency to express emotions. The 6th and 14th items of the 16-item scale are reverse scored. According to the internal consistency analysis of the scale, the Cronbach's alpha value was found to be .85. The analysis results showed the EES to be a valid and reliable scale.

Process

Psychodrama group psychotherapy started with 11 group members in July 2021 and it continued until October 2021. A total of 12 sessions were held every Saturday between 10:00-12:00. The psychodrama sessions were completed

with nine members due to the fact that two members could not continue the sessions.

Since psychodrama sessions have a psychotherapy quality, it is not possible to plan them in advance. The first session involved the meeting of the group members, information about psychodrama, and determination of group norms. The following sessions involved group members sharing their experiences with the members, the protagonist works based on these sharing, and the sharing of those who took part in these works. In the group sessions, warm-up and psychodrama games were also played, taking into account the needs and treatments of the group members. The sessions were led by the researcher, who is a

psychodramatist psychological counselor, and notes were written down at the end of each session. A pseudonym was used for each of the participants in this study.

Data Analysis

The pre-group and post-group scale scores of the nine members with fibromyalgia were compared using the Wilcoxon sign-ranked test and SPSS 20.0 (Windows)..

Results

The results obtained in the study are presented in the tables below. Table 1 presents the demographic characteristics of the study group.

Table 1. Distribution of Sociodemographic Characteristics of the Study Group

		N	%
Marital Status	Married	4	44.4
	Widower	1	11.1
	Divorced	4	44.4
Education	Elementary School	2	22.2
	High School	5	55.6
	Middle School	1	11.1
	University	1	11.1
		Mean	Sd
Age		47.4	9.6

Table 1 presents the demographic characteristics of the study group. While the mean age of the group was 47.4, 44.4% were married and 55.6% were high school graduates. Four members of the group were married, one

was widowed, and four were divorced. Furthermore, two of the group members were elementary school graduates, one was a middle school graduate, five were high school graduates, and one was a university graduate.

Table 2. Descriptive Statistical Values of SF-36, VAS, and EES

	N	Min.	Max.	Mean	Sd	Skewness	Kurtosis		
(PF)Physical Function-pretest	9	5	75	42.78	23.994	-.476	.717	-.827	1.400
(PF)Physical Function - posttest	9	20	100	73.33	24.367	-1.348	.717	2.201	1.400
(RF) Role Function/Physical-pretest	9	0	25	5.00	10.000	1.688	.717	1.188	1.400
(RF) Role Function/Physical posttest	9	25	100	73.33	34.821	-.713	.717	-1.729	1.400
(ER) Emotional Role-pretest	9	0	33	7.33	14.552	1.620	.717	.735	1.400
(ER) Emotional Role- posttest	9	33	100	71.78	33.652	-.309	.717	-2.475	1.400
(V) Vitality-pretest	9	10	50	31.11	13.869	.112	.717	-1.013	1.400
(V) Vitality -posttest	9	45	80	62.22	12.775	.054	.717	-1.668	1.400
(MH) Mental Health-pretest	9	20	70	42.56	17.629	.125	.717	-1.163	1.400
(MH) Mental Health-posttest	9	52	88	71.78	15.377	-.102	.717	-1.941	1.400
(SF) Social Function-pretest	9	.0	50.0	26.622	20.0520	-.238	.717	-1.801	1.400
(SF) Social Function -posttest	9	25	100	76.56	22.941	-1.474	.717	2.911	1.400
(P) Pain-pretest	9	0	35	25.22	12.677	-1.250	.717	.544	1.400
(P) Pain -posttest	9	35	100	58.33	22.638	.736	.717	-.534	1.400

(GH) General Health-pretest	9	0	50	26.67	18.371	-.225	.717	-1.454	1.400
(GH) General Health -posttest	9	45	80	60.56	15.298	.337	.717	-2.167	1.400
(HC) Health Change-pretest	9	0	75	38.89	22.048	-.214	.717	.144	1.400
(HC) Health Change -posttest	9	0	100	72.22	31.732	-1.626	.717	3.152	1.400
(VAS) Visual Analog Scale- pretest	9	6	9	7.78	.972	-.502	.717	-.009	1.400
(VAS) Visual Analog Scale - Posttest	9	1	6	3.89	1.537	-.296	.717	.744	1.400
(EES) Emotional Expressivity Scale -TOTAL- pretest	9	61	88	71.44	8.353	.846	.717	.720	1.400
(EES) Emotional Expressivity Scale -TOTAL- posttest	9	62	83	74.44	7.828	-.455	.717	-1.000	1.400

Before the analysis of the study data, the arithmetic mean, standard deviation, standard error, kurtosis, and skewness values of the scores from the variables in Table 2 were examined. The SF-36, Emotional Expressivity, and pain

variables of the group with fibromyalgia pain ranged from +1.5 to -1.5. When Kurtosis and Skewness values are between -1,5 and +1,5. This is considered to be a normal distribution (Tabachnick & Fidell, 2013).

Table 3. Results of the Wilcoxon Signed-Rank Test Comparing the SF-36, VAS and EES Pretest and Posttest Scores

	N	\bar{x}_{rank}	Σ_{rank}	z	p
Physical Function (PF) Posttest Physical Function (PF) Pretest	Negative Rank	0	.00	.00	-2.680 .007
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Role Function/Physical (RP) Posttest Role Function/Physical (RP) Pretest	Negative Rank	0	.00	.00	-2.692 .007
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Emotional Role (ER) Posttest Emotional Role (ER) Pretest	Negative Rank	0	.00	.00	-2.680 .007
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Vitality (V) Posttest Vitality (V) Pretest	Negative Rank	0	.00	.00	-2.670 .008
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Mental Health (MH) Posttest Mental Health (MH) Pretest	Negative Rank	0	.00	.00	-2.668 .008
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Social Function (SF) Posttest Social Function (SF) Pretest	Negative Rank	0	.00	.00	-2.668 .008
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Pain (P) Posttest Pain (P) Pretest	Negative Rank	0	.00	.00	-2.689 .007
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
General Health (GH) Posttest General Health (GH) Pretest	Negative Rank	0	.00	.00	-2.668 .008
	Positive Rank	9	5.00	45.00	
	Equal	0			
	Total	9			
Health Change (HC) Posttest Health Change (HC) Pretest	Negative Rank	1	3.00	3.00	-1.933 .053
	Positive Rank	6	4.17	25.00	
	Equal	2			
	Total	9			

Visual Analog Scale (VAS) Posttest	Negative Rank	9	5.00	45.00	-2.680	.007
Visual Analog Scale (VAS) Pretest	Positive Rank	0	.00	.00		
	Equal	0				
	Total	9				
Emotional Expressivity Scale (EES) Posttest	Negative Rank	3	.00	.00	-2.670	.008
Emotional Expressivity Scale (EES) Pretest	Positive Rank	6	5.00	45.00		
	Equal	0				
	Total	9				

Table 3 illustrates the results of the Wilcoxon signed-rank test that compared the application group's SF-36, VAS, and EES pretest and posttest scores. According to the table, a statistically significant difference was determined between the application group participants' SF-36, VAS, and EES scores before the application and after the application. The fact that the difference scores in SF-36 PF subscale, RP subscale, RE subscale, VT subscale, MH subscale, SF subscale, P subscale, GH subscale, and emotional expressivity scales were in favor of the positive ranks (last measurements) indicates that the program had a significant effect on increasing the scores of these variables. Also, the fact that the difference scores in the VAS were in favor of negative ranks (first measurements) indicates that the program had a significant effect on reducing participants' scores of this variable

Discussion

The present study aimed to examine the effect of psychodrama, a group psychotherapy method, on fibromyalgia (Kroenke, 2007; Lipowski, 1988), which was initially known as a somatic illness but started to be accepted as psychosomatic according to later studies. Participating members diagnosed with fibromyalgia began their psychodrama sessions with many somatic and psychological complaints such as pain, fatigue, sleep, and stress disorders that impair their quality of life. Starting from the physical and psychosocial difficulties created by fibromyalgia, the members opened themselves to the group with psychodrama games, sharing and feedback, and acted together in expressing and realizing their emotions. At the end of the sessions, it was revealed that psychodrama group psychotherapy practices were effective in reducing fibromyalgia patients' pain and increasing their quality of life and emotional expressivity.

Fibromyalgia pain negatively affects individuals' physical, social, and emotional functions and their personal roles including these functions, and seriously reduces the overall quality of life. This study determined that psychodrama sessions contributed significantly to the reduction of fibromyalgia pain, the increase of group members' general quality of life, and the ability to express emotions. According to the study results, there was an increase in the well-being of members participating in psychodrama in terms of their physical function, social function, role limitations due to physical problems, physical pain, mental health, and role limitations due to emotional problems, vitality, and general health perceptions. It is believed that in psychodrama sessions, the members' realization that their pain may also have psychological origins, their ability to express their emotions, and the fact that the right channel was found in externalizing emotions instead of using organ language were effective in reducing fibromyalgia pain. It is stated that in psychosomatic illnesses such as fibromyalgia, emotional awareness is less, negative effects cannot be distinguished, and emotions are discharged through the body rather than verbally expressing them (Devrimci-

Özgülven et al., 2000; Waller & Scheidt, 2004). In the present study, the members who were protagonists expressed their problems verbally and de facto for the first time, and this led to their internal integration with the catharsis they experienced (Blatner, 2002; Özbek & Leutz, 2011). Concrete examples of the functionality of this study are the member who was forced into marriage and then abandoned by her husband regaining her self-esteem and her neck and head pain decreasing and back pain of another member who faced the fact that her husband cheated and referred to the cheating as her hunchback decreasing. These examples indicate that psychodrama techniques have a facilitating effect on the regulation and processing of emotions and are compatible with the studies mentioned (Picardi et al., 2005).

According to recent studies, the effect of emotional processes on pain has begun to be noticed and accepted (Lumley et al., 2011). Walter and Scheidt (2004) put forth that emotional awareness and expression skills are low in psychosomatic patients and that expression through the body is higher. In their psychodrama study examining the members who switched to the role of organ parts (role-switching technique) and what they believed their organs with pain was telling them, Picardi et al. (2005) expressed that psychodrama allowed the members to discover the emotions and needs behind their bodily complaints. Similarly, in the present study, psychodrama allowed members to express emotions with every experience staged in the psychodrama sessions, and this expression brought about physical expression in the members. It is known that the expression of emotions is an effective factor on individuals' psychological and subjective well-being (King & Emmons, 1990). In addition, it is understood from the study of Moreno, the founder of psychodrama, in a refugee camp in Vienna between 1917 and 1918, that life elements cause psychosomatic syndromes and that emotional needs are curative while regulating these elements. Moreno revealed that individuals who loved their barracks and share them with their loved ones did not have psychosomatic complaints, but individuals who lived in barracks where there was anger, tension, and fighting had more psychosomatic complaints (Özbek & Leutz, 2011). This study drew attention to the importance of group work in healing the psychological and physiological damages caused by traumatic life events. Studies showed that many group therapies such as cognitive behavioral therapy and supportive-expressive therapy are helpful in the recovery of individuals with medical illnesses (Weiner, 1992). Along this line, the present study also showed that psychodrama, which is a group psychotherapy method, is effective in increasing the ability of individuals to express their emotions and their quality of life and reducing fibromyalgia pain.

It is considered to be an ironic misconception that the treatment of fibromyalgia (Friedberg, 2010; Lorente et al., 2014), which is defined by widespread body pain not based

on any medical reason and the presence of tender points where the pain is localized, is mostly and only pharmacologically done. Recent studies put forth that multidisciplinary methods combining pharmacological and non-pharmacological methods have begun to be used more frequently in the treatment of fibromyalgia, which is accepted to have emotional and psychological causes (Carville et al., 2008; Lera, 2009; Sarzi-Puttini et al., 2008). Half of the group members stated that they were using drugs for their complaints, but towards the end of the sessions, psychodrama helped them feel better, and they asked their doctors to reduce the dosage of the drug they used. Although pharmacological methods provide temporary relief to individuals' bodily complaints, they cannot heal their suppressed anger and the grief caused by the veiled traumatic experiences. In these sessions, the group members worked with the violence of a father, the betrayal of a spouse, the painful loss of a murdered sister, and the constant psychological violence of a spouse, and they tried to heal their wounds by using psychodrama group cohesion, using matching, role switching, and mirror techniques.

In conclusion, this study determined that psychodrama is effective in reducing fibromyalgia pain. In addition, it also revealed that quality of life, including social, emotional and physical functionality and roles, and the ability to express emotions of individuals whose pain decreased increased. This effect is parallel with the results of group psychotherapies conducted with individuals with fibromyalgia pain, low quality of life, and limited emotional expression. The low number of psychodrama members, the absence of a control group, the presence of only female members, socio-demographic data, perceived pain levels, quality of life, and emotional expressivity skills are important limitations of the present study. Another limitation is that the follow-up was not conducted because of the pandemic.

According to the study findings, the following recommendations can be given for new studies and researchers working in this field. First recommendation in this study, a control group was not used in the 12-week psychodrama sessions and only female members took part in the sessions. It is recommended that researchers conduct

further studies examining the effect on fibromyalgia using longer psychodrama sessions with heterogeneous control and experimental groups. In future studies, it is recommended that traumatic experience and alexithymia, which is defined as emotional dysregulation, should also be considered as variables in the psychodrama sessions with individuals with fibromyalgia. This recommendation is given because it is predicted that psychodrama sessions may reduce the somatic symptoms of alexithymia individuals who have difficulty expressing emotions. Also, a certain age group was not selected for this study. Therefore, the effect of the psychodrama sessions on young adults, middle-aged and elderly people can be tested. Methodically, the experimental design was employed in this study. In a new study, a study utilizing the mixed design can be carried out with verbal and observational data obtained from the group members. Moreover, in this study, the effect of psychodrama was discussed unilaterally. In future studies, an experimental study can be carried out with another theoretical approach. For example, the curative effects between psychodrama and mindfulness experimental groups can be examined

Declarations

Ethics Approval and Consent to Participate

The study was carried out by following the necessary ethical rules according to the Declaration of Helsinki. For the study, ethical committee approval was obtained from the Ethics Committee of the affiliated university on 11.02.2022 with the number E-45379966-020-39518.

Consent for Publication

Not applicable.

Availability of Data and Materials

Not applicable.

Competing Interests

The author declares that no competing interests in this manuscript.

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Authors' Contributions

ÖŞ worked on the concept of the study, gathering and analyzed data. All authors write and made the critical revisions about the article. All authors have read and approved the final article.

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