



The effects of psychodrama on emotion regulation skills in emerging adults

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Accepted: 26 April 2021 / Published online: 3 May 2021

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Abstract

This study aimed to investigate the effects of psychodrama on emotion regulation skills in emerging adults. The study was conducted with a total of 27 university freshmen, including 13 participants in the experimental group and 14 participants in the control group. Data were collected using the Emotion Regulation Questionnaire (ERQ) and a personal information form. In the experimental group, psychodrama therapy was delivered once a week at 180 min per week for 20 weeks. This study uses a mixed method with explanatory sequential design that includes both qualitative and quantitative assessments. Quantitative data were analyzed using two-way ANOVA for mixed measures, and qualitative data were used for content analysis. Both quantitative and qualitative results indicate that cognitive reappraisal of participants in the experimental group increased while suppression decreased compared to the controls. The follow-up assessment revealed that the increase in cognitive reappraisal scores and the decrease in suppression scores persisted after three months.

Keywords Psychodrama · Emerging adulthood · Emotion · Regulation

Introduction

Arnett (2000) defined “emerging adulthood” as the developmental period between the late teens and early twenties (approximately ages 18–25), between adolescence and young adulthood. Arnett (2014) highlights five features of emerging adulthood. These include, respectively, identity exploration (experimenting in the areas of love, work, and worldviews to be able to make permanent choices), instability (making frequent changes in residence, love, education, and work), self-focus (having minimal responsibility for others), feeling in-between (not feeling like an adolescent or an adult), and possibilities (having many different possibilities in every area of life, high hopes, and high expectations). This period is characterized by life events that include starting college, finishing school, forming long-term romantic relationships, and starting to work (Whiteman et al., 2011). This period is also defined by the delaying of the adoption of adult roles such as marriage, parenthood, and gaining independence from the family due to prolonged education (Zupančič et al., 2014).

Arnett (2007) further indicates that emerging adulthood is not a period without problems; it is a time of prolonged emotional insecurity with new and challenging developmental tasks (Roisman et al., 2004). It is also known to be a critical period for the emergence of mental health problems (De Girolamo et al., 2012). For example, this developmental period has been associated with problems such as a feeling of loneliness (Rokach, 2000), depression (Eshbaugh, 2008), risky behavior (Huggins et al., 2015), excessive alcohol consumption (Byrd, 2016), and suicide (Furr et al., 2001). However, this period is also defined as a window of opportunity for positive changes in life (O'Connor et al., 2011; Schulenberg et al., 2004). Therefore, it is significant how emerging adults perceive these emotional processes. Research has shown that emerging adulthood is an important period for the development of emotion regulation skills (Brewer et al., 2016).

Emotion regulation is defined as a process that includes awareness of what emotions one is feeling, when these emotions are being experienced, how they are being experienced, and how they express themselves (Gross, 1998). In this context, external processes are those that concern “others,” whereas internal processes concern the “self” (Thompson & Meyer, 2007). There are two commonly known emotional regulation strategies. The first and primary strategy is known as cognitive reappraisal. This approach is an appraisal strategy that

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mitigates or alters the impact of a situation that triggers emotions. The second is the suppression strategy, or a reaction strategy that aims to suppress the external expression of emotions (Gross & John, 2003).

Numerous studies report a positive and significant correlation between cognitive reappraisal and well-being, self-confidence, secure attachment, social support, life satisfaction, self-esteem, happiness, emotion recognition, and positive emotions (Demirtaş, 2018; Haga et al., 2009; Gross & John, 2003; John & Gross, 2004). Studies also demonstrate a negative correlation between cognitive reappraisal and negative affect and ruminative thinking (Gross & John, 2003; John & Gross, 2004). On the contrary, other studies show that suppression is negatively correlated with well-being, social intimacy, life satisfaction, and positive affect (Gross & John, 2003), while positively correlating with anxiety, depression, eating disorders, and substance abuse (Aldao et al., 2010; Broberg et al., 2001; Dvorak et al., 2014; Flynn et al., 2010).

Research on emotion regulation strategies used in different developmental periods has shown that problem-solving skills are not different for emerging adults, adolescents, adults, and the elderly; however, with age, passive emotion regulation strategies (avoidance, denial, suppression) become more prominent, whereas proactive emotion regulation strategies (coping with negative emotions, expressing emotions, seeking social support) diminish (Blanchard-Fields & Coats, 2008). Similarly, the results of Zimmermann and Iwanski (2014) show that emerging adults have difficulties in regulating anger compared to adults, that they suppress their fears, and that they are passive in the face of sadness and tend to escape from that feeling. However, the same study indicates that emerging adults are more likely to seek social support and more commonly use adaptive emotion-regulating strategies than adolescents.

For healthy psychosocial development, it is important for individuals in this transitional period to develop an awareness of their own emotional processes and their ability to regulate emotions. For this reason, group counseling and psycho-training on emotion regulation will be useful for emerging adults.

The psychotherapeutic approaches that have been studied in experimental studies concerning emotion regulation include modern psychotherapy methods such as acceptance and commitment therapy (Hofmann & Asmundson, 2008; Norouzi et al., 2017), mindfulness-based therapy (Demir & Gündoğan, 2018; Lutz et al., 2013), schema therapy, and dialectical behavior therapy (Fassbinder et al., 2016; Gülgez & Gündüz, 2015; Rizvi & Steffel, 2014), as well as cognitive-behavioral therapy (Plate & Aldao, 2017; Strauss et al., 2019). To date, however, there is only one study, by Prosen and Jendričko (2019), that examines the effect of psychodrama on emotion regulation.

Psychodrama is a method of group psychotherapy developed by Moreno as a group psychotherapy approach based on facilitating the expression (dramatization) of problems rather than talking through them. Learning through physical action can be much more effective than verbal learning (Kim, 2003). Studies on emerging adults demonstrate that psychodrama reduces psychological symptoms (Biolcati et al., 2017) and improves interpersonal relationships, self-confidence, self-awareness, coping skills, hope, empathy (Doğan, 2010; Doğan, 2018), self-esteem, self-expression skills, communication skills (Wilmer-Barbrook, 2013), and well-being (Biolcati et al., 2017). Psychodrama also allows individuals to gain insight into their own thoughts and emotional and behavioral processes. Externalization allows better regulation of emotional states (Özbek & Leutz, 2003, p.72–87).

This study aimed to investigate the effects of psychodrama on emotion regulation abilities in emerging adults. We expect our findings to contribute to the literature on emerging adulthood and shed light on psychodrama studies.

Within the framework of this research, the following hypotheses have been tested:

- 1) There will be a significant difference between the pretest and posttest scores for cognitive reappraisal and suppression in support of the experimental group, as compared to the control group.
- 2) There won't be a significant difference between the posttest and follow-up test scores for cognitive reappraisal and suppression of both the experimental group and the control group.

Method

Research Model

This study uses mixed methods with explanatory sequential design that includes both qualitative and quantitative assessments. Since the research problem is primarily of a quantitative nature, the first phase of the study consisted of the collection and analysis of quantitative data. Subsequently, the second phase of the study consisted of the collection and analysis of qualitative data to support the initial data and to obtain a more in-depth assessment (Creswell & Plano-Clark, 2017, p.77). The quantitative and qualitative findings were interpreted in relation to each other.

The first phase of the research used a pretest-posttest-follow-up design with a matched control group in order to determine any causal relationship between the dependent and independent variables (Büyüköztürk et al., 2009, p.194–199). Before investigating the effects of psychodrama therapy on emotion regulation skills, the Emotion Regulation

Questionnaire (ERQ) was applied as a pretest to all subjects in the experimental and control groups. After the application of the ERQ, the subjects in the experimental group received psychodrama therapy. The control group received no intervention. After the completion of the psychodrama application, the ERQ was applied as a posttest to all subjects in both groups. Finally, three months after the completion of the study, both groups underwent follow-up measurements to determine the longer-term effects of psychodrama therapy.

The second phase of the study consisted of a case study as a type of qualitative research. Case studies that aim to determine outcomes for a specific purpose can be applied together with quantitative or qualitative methods and in the context of individuals, institutions, groups, or settings (Yıldırım & Şimşek, 2011, p. 77). Qualitative data were collected to support the quantitative data obtained from the experimental design and to provide more in-depth information, and to evaluate the perceptions formed throughout the study in a holistic manner. For this purpose, semi-structured interviews were conducted with the thirteen participants in the experimental group. The obtained data were then analyzed using content analysis.

Participants

This study enrolled students from various departments of the Dokuz Eylül University Buca Faculty of Education who were freshmen during the 2018–2019 academic year. The study included a total of 27 students, including 13 participants in the experimental group (7 males and 6 females, mean age 20.4 years, SD 1.8 years) and 14 participants in the control group (7 males and 7 females, mean age 20.6 years, SD 1.7 years). The preliminary interviews revealed that none of the subjects in either group had a history of mental disorders. Moreover, none of the participants had ever participated in any group counseling or therapy. The qualitative assessment (i.e. the second phase of the study) included all participants in the experimental group.

Data Collection Tools

Quantitative Data Collection Tools

Personal Information Form This form was developed by the researcher to obtain information about the age and gender of the participants and their reasons for participating in psychodrama.

Emotion Regulation Questionnaire (ERQ) The Emotion Regulation Questionnaire was developed by Gross and John (2003) and aims to determine to what extent cognitive reappraisal (sample items.: “*When I want to feel less negative emotion (such as sadness or anger), I change what I’m thinking about*”, “*I control my emotions by changing the way I*

think about the situation I’m in”) or suppression strategies (sample items: “*I keep my emotions to myself*”, “*I control my emotions by not expressing them*”) are used for emotion regulation. It is a 10-item, 7-point Likert-type scale. Gross and John (2003) determined the test-retest coefficient as 0.69 for both sub-dimensions, and the internal consistency coefficients as 0.79 for cognitive reappraisal and 0.73 for suppression. Test-retest coefficient was reported as 0.69 in both dimensions. The ERQ was adapted to Turkish by Totan (2015). Cronbach’s alpha for the entire scale was calculated to be 0.837.

Semi-Structured Interview Form

The semi-structured interview form was developed by the researcher and reviewed by three field experts. The final form was shaped according to the opinions of the three experts. The form contains the following questions:

- 1) Which emotion(s) did you regulate during the psychodrama process?
- 2) Which emotion regulation skills do you think you have developed?
- 3) How do you think was effective in emotion regulation and skill development during the psychodrama process?

Procedure

This study was conducted as semi-experimental research to determine the effects of group psychodrama sessions on improving the emotion regulation skills of emerging adults. In the 2018–2019 academic year, the researcher announced that a psychodrama group study would be conducted for first-year students within the scope of the orientation program organized by the Dokuz Eylül University Buca Faculty of Education, Guidance and Psychological Counseling Department. The students were given a two-week window to sign up. After the deadline, 32 students had signed up for participation. Those 32 applicants were invited for a preliminary interview, and 29 applicants presented for the interview. The applicants filled out a personal information form during the preliminary interview. They also provided information regarding their history of mental illness, psychological treatments, and their reasons for psychodrama. None of the applicants had a history of mental disorders or treatment. Subsequently, the applicants were informed regarding the aim, scope, duration, rules, and method of the study and signed written consent forms. Lastly, the students who attended the preliminary interview were assigned to experimental and control groups randomly by lottery while ensuring that there would be equal numbers of male and female subjects in both groups. Initially there were 15 subjects in the experimental group and 14 in the control group.

Two participants quit psychotherapy: one after the first session, and another after the eleventh session.

A pretest of the ERQ was administered to all subjects in the experimental and control groups. Subsequently, the subjects in the experimental group were provided with 20 weekly group sessions of 180 min each that employed psychodrama techniques aiming to develop the participants' emotion regulation skills. Meanwhile, the control group did not receive any intervention. After the completion of the sessions with the experimental group, the ERQ posttest was applied to both groups. Finally, three months after the completion of the application, a follow-up test was performed for both groups.

Qualitative data were collected from semi-structured interviews with all participants in the experimental group one week after the completion of group sessions. All group sessions were conducted by the researcher. Within the scope of the internal validity of the experimental study, as the researcher did not teach any of the courses attended by the participants, we think that the participants did not have any expectations (such as acclaim or grades) that may have affected the outcome of the experimental process. Furthermore, since the study was conducted in the school that the participants attended, any impact that may be caused by a new physical environment that could have affected the outcome of the experimental process was prevented.

Some necessary measures were taken regarding the validity and reliability of the data obtained from the semi-structured interviews. For internal validity, the relevant literature was reviewed, and the questions were developed in reference to the available literature (Gross, 1998; John & Gross, 2004; Yaniv, 2012; Zimmermann & Iwanski, 2014). Also, the use of expert opinion while preparing the questions was considered as another measure for internal validity. The detailed description of the data obtained from the interviews and the inclusion of direct quotes were measures for external validity. Moreover, it was observed that the results were consistent with the theories and concepts presented in the relevant literature.

The Process of Psychodrama

This study aimed to investigate the effects of psychodrama on emotion regulation skills in emerging adults. For this purpose, a total of 20 sessions of 180 min each were held once a week. Each session included action, role-reversal, doubling, and sharing. The group session process, the applied group and protagonist games, the used techniques, and the purpose of the sessions are presented in Appendix Table 3. All protagonist games included warm-up, action, role-play, concretization, doubling, role reversal, mirroring, and surplus reality. Group sharing included role feedback followed by identification.

Data Analysis

The ERQ cognitive reappraisal and suppression pretest scores were found to be normally distributed and group variances were similar. The t-test was used to determine any significant difference between the pretest scores of the experimental and control groups. Subsequently, two-way ANOVA (post-hoc test Bonferroni) for mixed measures was used to determine the effect of psychological counseling in the form of psychodrama therapy on the dependent variables and any differences between the two groups. The data obtained from the three measurements were analyzed using SPSS software package version 23.0, and the level of significance was determined as 0.05.

The second phase of the study included qualitative data collection. After the completion of the experimental process, the participants were subjected to semi-structured interviews, which consisted of three open-ended questions. The mean interview duration was 25 min. Each of the three questions were considered central themes for the interviews. First, audio recordings were transcribed for data analysis. The participants' answers to the questions were then analyzed to determine common codes. Finally, the common codes determined by the researcher were used to determine common themes and the data were accordingly interpreted. The participants' real names were not used when analyzing and interpreting data. The participants' answers to interview questions are presented as direct quotations. These direct quotes are labeled with the letter "D" and numbers to specify participants.

Results

Quantitative Data Analysis

First, the Kolmogorov-Smirnov test was applied to examine the normality assumption required for two-way analysis of variance for repeated measures analysis. Based on the results of the cognitive reappraisal pretest ($D(27) = 0.078, p > 0.05$), suppression pretest ($D(27) = 0.14, p > 0.05$), cognitive reappraisal posttest ($D(27) = 0.2, p > 0.05$), suppression posttest ($D(27) = 0.2, p > 0.05$), cognitive reappraisal follow-up test ($D(27) = 0.14, p > 0.05$), and suppression follow-up test ($D(27) = 0.2, p > 0.05$), it was determined that the scores obtained were normally distributed.

Mauchly's sphericity test was used to test the sphericity assumption of variance analysis for repeated measures. When the sphericity assumption was met, variance analysis was performed with a univariate approach after applying Greenhouse-Geisser correction (Tabachnick & Fidell, 2012, pp. 46–53). The results of Mauchly's sphericity test showed that the repeated measures of cognitive reappraisal ($W_{(2)} = 0.16, p < 0.05$) and suppression ($W_{(2)} = 0.26, p < 0.05$) from

different time points did not meet the sphericity assumption. For this reason, while investigating the within-group effect, Greenhouse-Geisser correction and F-ratios (automatically calculated by SPSS) were used.

Another assumption required for repeated measures is the assumption of equal variance in measurements performed at the same time point (Büyüköztürk, 2007, p. 79). The homoscedasticity (i.e. homogeneity of variances) of the pretest, posttest, and follow-up test scores of the two groups was investigated by Levene’s test. For the pretest ($F = 0.02, p > 0.05$ for cognitive reappraisal and $F = 0.2, p > 0.05$ for suppression), posttest ($F = 2.75, p > 0.05$ for cognitive reappraisal and $F = 0.5, p > 0.05$ for suppression), and follow-up test ($F = 2.47, p > 0.05$ for cognitive reappraisal and $F = 0.6, p > 0.05$ for suppression), variances between groups were accordingly determined to be homogeneous.

Box’s M test was used to investigate whether the covariance matrices of dependent variables were equal. Box’s M table indicated that the assumption of multivariate normality was met for cognitive reappraisal (Box’s $M = 21.06$) and suppression (Box’s $M = 21.07$). In reference to these data, we concluded that the assumptions required for variance analysis for repeated measures were met.

The homogeneity of the pretest results of the experimental and control groups was investigated using the t-test. Cognitive reappraisal ($t_{(25)} = 0.06, p > 0.05$) and suppression ($t_{(25)} = 0.01, p > 0.05$) pretest scores of the experimental and control groups were not significantly different. Therefore, it could be reasoned that the participants in the experimental and control groups were similar in terms of cognitive reappraisal and suppression before the psychodrama therapy.

Variance analysis for repeated measures was performed to determine whether the mean cognitive reappraisal pretest scores of the participants in the experimental group were significantly different than their mean cognitive reappraisal posttest and follow-up test scores. The results of the analysis are presented in Table 1.

Table 1 presents the results of the variance analysis applied to the mean cognitive reappraisal pretest, posttest, and follow-up test scores of the participants in the experimental and

control groups. In reference to these results, group effect was significant ($F_{(1,25)} = 12.5, p < 0.05$). The differences between pretest, posttest, and follow-up test scores were also significant without group distinction ($F_{(2,50)} = 50.718, p < 0.05$). This result suggests that, without group distinction, the participants’ cognitive reappraisal scores changed as a result of the experimental process. Also, the analysis of the important element of common effect (group \times measure effect) revealed that the obtained value was significant ($F_{(2,50)} = 43.12, p < 0.05$).

In reference to the results of the variance analysis, a Bonferroni test was performed to determine which sets of data were significantly different. Bonferroni testing was applied concerning the intra- and inter-group comparisons of the mean cognitive reappraisal pretest, posttest, and follow-up test scores of both groups. The results of the Bonferroni test showed that the difference between the mean cognitive reappraisal pretest score ($\bar{x} = 25.38$) and the mean posttest score ($\bar{x} = 33.38$) of the experimental group was statistically significant ($-8^*, p < 0.05$). Similarly, the difference between the mean cognitive reappraisal pretest score ($\bar{x} = 25.38$) and the mean follow-up score ($\bar{x} = 33.15$) of the experimental group was statistically significant ($-7.7^*, p < 0.05$). The mean cognitive reappraisal posttest score ($\bar{x} = 33.38$) and the mean follow-up test score ($\bar{x} = 33.15$) were not significantly different ($-0.23, p > 0.05$). In other words, the difference between mean cognitive reappraisal pretest and posttest scores was significant, whereas the difference between mean cognitive reappraisal posttest and follow-up test scores was not significant.

Variance analysis for repeated measures was performed to determine whether the mean suppression pretest scores of the participants in the experimental group were significantly different than their mean suppression posttest and follow-up test scores. The results of the analysis are presented in Table 2.

Table 2 presents the results of the variance analysis applied to the mean suppression pretest, posttest, and follow-up scores of the participants in the experimental and control groups. In reference to these results, group effect was significant ($F_{(1,25)} = 7.8, p < 0.05$). The differences between pretest, posttest, and follow-up test scores were also significant without

Table 1 ANOVA Test Results of Cognitive Reappraisal Pretest, Posttest, and Follow-Up Test Scores of Experimental and Control Groups

Source	Sum of Squares	SD	Mean of Squares	F	p	n ²
Between groups	1602.616	26				
Group (Experimental/Control)	534.476	1	534.476	12.5	0.02	0.3
Error	1068.141	25	28.48			
Within Groups	560.059	54				
Measure (Pre-post follow-up)	302.696	2	151.348	50.718	0.00	0.7
Group \times Measure	257.363	2	128.68	43.12	0.00	0.6
Error	149.20	50	2.9			
Total	2162.675	80				

Table 2 ANOVA Test Results of Suppression Pretest, Posttest, and Follow-Up Test Scores of Experimental and Control Groups

Source	Sum of Squares	SD	Mean of Squares	F	p	η^2
Between groups	1532.765	26				
Group (Experimental/Control)	367.313	1	367.313	7.8	0.01	0.3
Error	1165.452	25	46.618			
Within groups	356.76	27				
Measure (Pre-post-follow-up)	160.77	1	160.77	73.66	0.00	0.7
Group × Measure	141.43	1	141.43	64.8	0.00	0.7
Error	54.56	25	2.15			
Total	1889.525	53				

group distinction ($F_{(1,25)} = 73.66, p < 0.05$). This result suggests that, without group distinction, the participants' suppression scores changed as a result of the experimental process. Also, the analysis of the important element of common effect (group × measure effect) revealed that the obtained value was significant ($F_{(1,25)} = 64.8, p < 0.05$).

In reference to the results of the variance analysis, a Bonferroni test was performed to determine which sets of data were significantly different. Bonferroni testing was applied concerning the intra- and inter-group comparisons of the mean suppression pretest, posttest, and follow-up test scores of both groups. The results of the Bonferroni test showed that the difference between the mean suppression pretest score ($\bar{x} = 15.7$) and the mean posttest score ($\bar{x} = 9.15$) of the experimental group was statistically significant ($6.55^*, p < 0.05$). Similarly, the difference between the mean suppression pretest score ($\bar{x} = 15.78$) and the mean follow-up score ($\bar{x} = 9.07$) of the experimental group was statistically significant ($6.63^*, p < 0.05$). The mean suppression posttest score ($\bar{x} = 9.15$) and the mean follow-up test score ($\bar{x} = 9.07$) were not significantly different ($0.2, p > 0.05$). In other words, the difference between mean suppression pretest and posttest scores was significant, whereas the difference between mean cognitive reappraisal posttest and follow-up test scores was not significant.

These results suggest that the mean suppression posttest and follow-up test scores of the experimental group had increased compared to the mean cognitive reappraisal pretest score while the mean suppression posttest and follow-up scores had decreased compared to the mean suppression pretest score, but there was no change in the control group.

Qualitative Findings

In order to answer the question “What are the students' opinions about the effect of psychodrama practice on emotion regulation skills?”, the participants' answers to the three items on the interview form were analyzed using content analysis. Interview findings and interpretations are presented below.

The first item on the interview form was as follows: “Which emotion(s) did you regulate during the psychodrama

process?” When the answers to this question were examined, it was determined that the main theme was “negative emotions”. Codes of this theme are respectively “anxiety” ($f = 9$), “shame” ($f = 6$), “anger” ($f = 4$), “sadness” ($f = 1$). The opinions of some of the participants on this subject are given below.

D 3: “Before I started the psychodrama, I was particularly concerned about the future and I was always thinking about what was going to happen next. I realized that this was exhausting me and led me to become a controlling person.”

D 1: “Around the time I started the psychodrama, I thought of myself as timid and shy. I saw that it was because I cared too much about what others thought of me and what they had to say.”

D 9: “When I first joined the psychodrama, I wanted to regulate my anger, but over time I also started to think I wasn't dealing with other feelings, like sadness and anxiety, and I needed to regulate those feelings, too.”

The second item on the interview form was as follows: “Which emotion regulation skills do you think you have developed?” When the answers to this question are examined, two main themes are determined. These themes are “interpersonal skill” and “personal skills”. The code for the interpersonal skills theme is “empathy” ($f = 12$). On the other hand, codes of personal skills are respectively, “self-confidence” ($f = 7$), “hopefulness” ($f = 5$), “patience” ($f = 3$). The responses to this item and their interpretations are as follows.

D 10: “I previously believed that my own thoughts alone were right. I also had prejudices against other people. But here, when I looked at myself from the outside and got to know others, I realized how wrong it was to try to correct other people's thoughts and behaviors according to myself. I think I am starting to better understand other people. My empathy skills have improved. I started to look at events and people more optimistically and give

myself and others a chance and see things with more hope.”

D 7: *“I couldn’t easily put myself out there in new settings. I usually did what other people wanted. I have now realized that my self-confidence has improved and that I have to act in a way that will make me happy, and that it is my own thoughts that matter.”*

D 4: *“Before I started psychodrama, I had thoughts and fears that I couldn’t open myself up to people I didn’t know and that I would come across as ridiculous. But as I started to get to know my groupmates throughout the process, those feelings and thoughts changed. I have seen that it takes a while to get to know people, that prejudices don’t work. I have become more patient.”*

The third item on the interview form was as follows: “How do you think was effective in emotion regulation and skill development during the psychodrama process?” When the answers to this question were examined, it was determined that the main theme was “psychodramatic techniques”. Codes of this theme are respectively “role-playing” (f= 13), “role-reversal” (f= 12), “doubling” (f= 7), “watching” (f= 7), “mirroring” (f= 5) and “concretization” (f= 2). The opinions of some of the participants on this subject are given below.

D 12: *“When I became the protagonist and reversed roles with the other party, I better understood their feelings. I realized it was not the same as it looked from the outside. This further enhanced my empathy skills. I am less angry with others.”*

D 13: *“I was having difficulty making sense of and expressing my emotions in games. In fact, this situation was also present in my daily life. I mostly felt anger. But the games we played here, taking roles, and the therapist saying my feelings while behind me was just like my inner voice. It allowed me to assign meaning to my feelings. I realized it was not the same as it looked from the outside.”*

D 6: *“Taking roles throughout the process and role-reversal has been very effective. Also, in my own protagonist game, the fact that my emotions were expressed as a cat allowed me to better understand what was happening inside me, and my anxieties, fears, and expectations. I was able to take a closer look at these feelings and I believe this was helpful for me regulating them.”*

Discussion

The aim of this study was to examine the effect of psychodrama on emotion regulation skills in emerging adults. The

pretest results of the two groups were not significantly different. After the completion of the application, the same scale was applied as a posttest.

Our findings showed that psychodrama increased the cognitive reappraisal dimension of emotion regulation and decreased the suppression dimension in the experimental group. The fact that the emotion regulation posttest results of the experimental group were not significantly different than those of the 3-month follow-up test indicates that this effect is persistent.

The second phase of the study (i.e. qualitative data collection) was conducted through semi-structured interviews with students. The first item on the interview form was as follows: “Which emotion(s) did you regulate during the psychodrama process?” Responding to this question, nine participants indicated regulating anxiety, six shame, four anger, and one sadness.

In our study, the emotion that participants most commonly wanted to regulate was anxiety. This finding is parallel to that of Arnett and Schwab (2013), who indicated that more than half of all emerging adults experience intense anxiety (p. 27). Similarly, the Turkish study by Bayram and Bilgel (2008) found a high prevalence of anxiety among university students. Emerging adulthood is defined as a period of searching with ambivalences in work life, settlement, and close relations. These factors, in turn, lead to increased anxiety (Arnett, 2004, p. 277–278). Damon (2009) noted that emerging adults will often experience anxiety due to their lack of effort to achieve long-term goals (p. 6). This emotion has also been found to be associated with maladaptive emotion regulation strategies such as avoidance, rumination, and suppression (Aldao et al., 2010). However, excessively resorting to these maladaptive emotion regulation strategies can lead to anxiety disorders and depression (Olatunji et al., 2010; Pasquini et al., 2004).

The second most common feeling that the participants wished to regulate was the feeling of shame. The feeling of shame is a negative self-assessment that suggests the individual will lose value in the eyes of others in the event that their vulnerabilities or flaws are exposed in the face of unexpected and unwanted situations (Kemeny et al., 2004). Emerging adulthood is characterized by both identity formation and the development of more profound and close relationships with others (Arnett, 2000). During this period of life, uncertainties in relationships and work life are common, as well as mistakes and failures in adult responsibilities. These can often trigger feelings of inadequacy, self-doubt, and shame. Moreover, increased loneliness and alienation associated with the fear of rejection in close relationships due to the development of a negative body image can contribute to the development of feelings of shame (Wei et al., 2005).

The third most common feeling that the participants wished to regulate was the feeling of anger. Galambos et al. (2006)

indicated that, from 18 to 25 years, increasing age was associated with decreasing anger among emerging adults. On the other hand, a study by Zimmermann and Iwanski (2014) reported that emerging adults appeared to have increased difficulty regulating their feeling of anger compared to adults. Arnett (2001) described emerging adulthood as prolonged adolescence. Emerging adults use maladaptive strategies to regulate their feelings of anger, as do adolescents (Zimmermann & Iwanski, 2014). The unhealthy regulation of anger can lead to anxiety (Hawkins & Cogle, 2011), interpersonal problems (DiGiuseppe et al., 1994), and psychosocial problems (Newman, 2011). Furthermore, the suppression of anger is positively correlated with depression (Koh et al., 2002).

The least common emotion that the participants wished to regulate was sadness. Zimmermann and Iwanski (2014) noted that emerging adults appear to regulate their feeling of sadness with more passive maladaptive approaches compared to other negative emotions, such as anger and fear, and that they avoid feeling this emotion. Also, they use rumination (a maladaptive emotion regulation strategy) less commonly to regulate sadness. The fact that only one person indicated wishing to regulate sadness in our study can also be ascribed to young people wanting to escape sadness and being afraid to confront it.

The second item on the interview form was as follows: “Which emotion regulation skills do you think you have developed?” To respond to this question, twelve participants indicated having developed empathy skills, seven self-confidence, five hopefulness, and three patience.

In our study, the skill that participants most commonly reported improving was empathy. Laghi et al. (2018) found cognitive reappraisal (an emotion regulation strategy) to be positively correlated with empathy skills and prosocial behavior. They noted that internalization problems were associated with emotion regulation skills and externalization problems with empathy. Our finding that psychodrama improves empathy skills is consistent with other studies on the effects of psychodrama on the development of empathy skills (Doğan, 2018; Kipper & Ben-Ely, 1979).

In our study, self-confidence was the second most commonly improved skill as reported by the participants. By reducing the effects of negative emotions, self-confidence can play a vital role in enhancing the well-being of individuals (Bajaj et al., 2016). It is therefore not surprising that self-confidence appears to be associated with emotion regulation. There is a positive relationship between cognitive reappraisal (an emotion regulation strategy) and self-confidence and social functioning (Cutuli, 2014).

The study by Harkins et al. (2011) reported that psychodrama increased self-confidence among prisoners. They found that the participants learned new skills through role-playing and acting, found alternative methods for self-control and anger management, and were more confident in developing friendships and close relationships. Psychodrama helps group

members develop social skills by interacting with each other and taking each other as models. It is also believed that role-playing and expressing one’s own feelings and thoughts in the safe space of the group will improve self-confidence.

In our study, hopefulness was the third most commonly improved skill as reported by the participants. Hope is the positive expectation that a goal can be achieved (Snyder, 1994, p.4–5). It facilitates goal-setting, planning, imagining, creativity, and even risk-taking (Breznitz, 1986, p. 285–305). Greater use of cognitive reappraisal increases the sense of hope (Halperin & Gross, 2011).

Koleva (2011) stated that psychodrama therapy helped women who were victims of human trafficking develop hope for new ways of life. Furthermore, Yalom (2002) suggested that one of the therapeutic principles of group therapy is that it instills hope (p.21–22).

In our study, patience was the fourth most commonly improved skill as reported by the participants. Patience is defined as being able to wait calmly in the face of disappointing, painful, and distressing situations (Schnitker, 2012). Patience increases positive emotions and life satisfaction by making it easier to achieve goals (Ryff & Singer, 1998). It also facilitates coping with emotions in the face of stressful situations and improves the development of positive interpersonal interactions (Diener et al., 1998). Therefore, patience can be effective in developing adaptive emotion regulation skills.

To date, there are no studies in the literature that investigate the development of patience through group studies. In our study, it can be said that, through role-playing and role-reversal, group members developed a sense of patience along with empathy. It can also be said that helping protagonists in the role of supporting ego, watching the play as an audience, and waiting for their turn to share roles and identifications in the group could have helped develop our participants’ sense of patience. It can be said that seeing that there may be different alternatives for solving problems helps to increase patience.

The third item on the interview form was as follows: “How do you think was effective in emotion regulation and skill development during the psychodrama process?” During the psychodrama study, participants reported that the following techniques improved their emotion regulation skills: thirteen role-playing, twelve role-reversal, seven doubling, seven watching, five mirroring, and two concretizations. Kipper and Ritchie’s (2003) meta-analysis on the effectiveness of psychodramatic techniques showed that the most effective psychodrama techniques were role-reversal and doubling. The findings obtained from this study are similar to the research results of Kipper and Ritchie (2003).

Through role-playing, a technique used in psychodrama, clients are able to re-enact their experiences and see various opportunities. Role-playing helps individuals to explore previously unexpressed emotions and to say or do things they want to say or do (Clark & Davis-Gage, 2010). The surplus reality scene played in psychodrama facilitates the development of

spontaneity, allows social atom repair, and helps to create a positive identity. It also reveals the dreams and hopes of individuals (Watersong, 2011). This allows clients to recognize their own emotions, eliminate their suppressions, and learn to use cognitive reappraisal to regulate their emotions.

Kellermann (1994) describes role-reversal, another psychodrama method, as two individuals trying to enter each other's personal worlds, regardless of their empathetic skills. Role-reversal begins with superficial impersonation and modeling and can become a more profound and accurate impersonation of the other individual. It is to assume one's character and to become "them" for a certain period of time (Kellermann, 1994, p. 261–263). Role-reversal improves empathy skills, insight, and hope (Lousada, 1998, p.205–227). It also facilitates socialization and interpersonal relationships and develops ego strength, spontaneity, sensitivity, and awareness (Hudgins & Toscani, 2013, p. 49–75; Kellermann, 1994, p.261–263). The role-reversal technique is thought to help clients recognize their emotions, reduce suppression, and increase cognitive reappraisal skills.

The audience serves an important function by witnessing the stories of the protagonist. Psychodrama has the power to stir strong emotions in the audience, just like watching a movie. "The audience sees itself, that is, one of its collective syndromes portrayed on the stage" (Moreno, 1946, p. 251). By following the protagonist's story, the audience has the opportunity to recognize their own feelings and experience catharsis. Moreover, the mirror neurons of the audience are activated and make the audience sense that they are participating in the action together with the protagonist (Keysers & Gazzola, 2010). In this case, the audience can be said to have experienced a similar therapeutic effect as the protagonist. Thus, the audience recognizes their own feelings and can see new solutions. This, in turn, facilitates cognitive reappraisal.

In psychodrama, doubling supports protagonists in finding words to express their feelings and thoughts that have not been adequately expressed before. Doubling helps protagonists integrate previously separated emotions and cognitions (Hudgins & Toscani, 2013, p. 49–75). Through this technique, the doubled person feels understood and empathized with (Lousada, 1998, p.205–227). This technique is also effective in the development of empathy in clients (Lousada, 1998, p. 205–227; Tanzi et al., 2014). It also offers the protagonist an opportunity to renegotiate and reframe the situation with a more mature point of view (Dayton, 2005, p. 21–47). This helps to improve cognitive reappraisal ability.

In mirroring, the protagonist is removed from the stage and one of the group members is selected to replace them and assume their role. The protagonist watches from above. Moreno calls this stage "self-awareness" (Özbek & Leutz, 2003, p. 72–87). The mirror technique prompts the protagonist to think objectively of what they subjectively perceive (Kipper, 1986, as cited in Lousada, 1998, p. 205–227). Also, it helps the

protagonist develop a clearer and broader perspective by providing an opportunity to see their situation from the outside (Dayton, 2005, p.21–47). This technique is thought to allow the increased use of cognitive reappraisal.

Concretization refers to a technique in which the client is asked to translate their abstract emotions into concrete bodily expressions (Kellerman, 1996). It encourages self-reflection in order to create scenes for emotions and behaviors that clients cannot resolve by thinking alone (Gershoni, 2003, p. 49–62). Concretization helps clients make new connections on issues for which they are seeking help (Holmes et al., 2014, p. 9–22). Moreover, concretization is thought to reduce suppression, while increasing emotional awareness and cognitive reappraisal.

Emotion regulation is an important tool for interpersonal relationships and socio-emotional cohesion throughout life. Psychodrama allows individuals to gain insight into their own thinking and emotional and behavioral processes while also allowing better regulation of emotional content via externalization (Özbek & Leutz, 2003, p.72–87). For this reason, psychodrama changes clients' usage of emotion regulation strategies.

Prosen and Jendričko (2019) investigated the effects of psychodrama on emotion regulation and determined that suppression (an emotion regulation strategy) scores significantly decreased after psychodrama therapy. In our study, we observed that cognitive emotion regulation strategies increased and suppression strategies decreased. The difference between these two studies may be ascribed to the greater number of sessions in our study, which provided the participants with sufficient time to open themselves up, complete unfinished games, and develop trust towards the group.

As psychodrama intensively focuses on interpersonal relationships, further research can investigate factors of interpersonal emotion regulation, including social modeling, soothing, enhancing positive affect, and perspective-taking. Research could also focus on developing novel group games that aim to improve emotion regulation skills. It can be proposed that psychodrama be used in the investigation of maladaptive strategies (e.g. rumination, avoidance, suppression) and emotions, and to help develop adaptive skills.

The major limitation of this study was the small experimental and control group sizes. It is recommended to carry out studies on the subject with more participants, as it will increase the generalizability of the studies. Another limitation of this study is that the control group did not receive any intervention. In addition, this study was carried out in the school environment. It is thought that this situation prevented some group members from disclosing themselves. It is thought that it would be more appropriate to conduct researches outside the school environment. Lastly, this study was conducted without a co-therapist. The lack of a co-therapist makes it difficult for the administrator to keep track of all participants during protagonist games. It is recommended that psychodrama studies be conducted with the co-therapist.

Appendix

Table 3 Group Sessions

Session No.	Content	Used Technique	Purpose
1	Introduction, establishing group rules, determining objectives, providing theoretical knowledge about psychodrama	Verbal transfer, playing the “adjective name game” (where people introduce themselves by using an adjective that describes them and starts with the same letter as their first name) to introduce participants, a game to find out how these names were given, group sharing	To help group members get acquainted and see the workings of psychodrama, to raise awareness about the expectations and responsibilities associated with the group
2	Emotion statues game, protagonist game, role reversal, doubling	Action, concretization, role-taking, doubling, role-reversal, group sharing	To let group members focus on their own emotions; to improve their ability to recognize and express their feelings
3	Protagonist game	Action, role-taking, role-reversal, doubling, mirroring, surplus reality, group sharing	To gain insight into sleep disturbances associated with anxiety and a feeling of loneliness; to allow catharsis and to develop emotional awareness and emotion regulation skills
4	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain awareness and insight into feelings of worthlessness, jealousy, and conflicts experienced in sibling relationships; to develop new cognitive appraisal skills
5	Protagonist game	Action, role-taking, doubling,	To gain insight into feelings of fear, insecurity, and

Table 3 (continued)

Session No.	Content	Used Technique	Purpose
		role-reversal, mirroring, surplus reality, group sharing	anger experienced in friend relationships; to develop empathy and emotion regulation skills
6	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain insight and awareness regarding family conflicts; to develop communication and emotion regulation skills
7	Snow White fairy tale game	Action, role-taking, role-reversal, group sharing	To develop empathy, spontaneity, creativity, and emotion regulation skills by assuming different roles in the fairy tale
8	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain awareness regarding other emotions that underlie the feeling of anger against the father; to allow catharsis; to develop/improve cognitive appraisal skills by reducing suppression
9	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain insight and awareness regarding feelings of anxiety, sadness, anger, and insecurity associated with a loss; to allow catharsis; to develop emotion regulation skills
10	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain insight and awareness regarding the underlying emotions (such as anger and anxiety) experienced in

Table 3 (continued)

Session No.	Content	Used Technique	Purpose
11	The hope train game; protagonist game	Action, concretization, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	peer relationships; to develop emotion regulation skills To allow catharsis; to gain awareness regarding feelings of insecurity, shyness, and anxiety brought about by past relationships with the opposite sex; to develop cognitive reappraisal skills
12	The camping game	Action, role-taking, soliloquy, group sharing	To reveal the sociometric structure within the group in order to understand relationship patterns
13	The emotion cards game; protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To develop emotion regulation skills for different situations; to allow catharsis; to develop awareness regarding feelings of anxiety for the future and the ability to manage those feelings
14	Protagonist game	Action, role-taking, doubling, concretization, role-reversal, mirroring, surplus reality, group sharing	To gain awareness regarding feelings of fear, anxiety, insecurity, and anger about problems previously experienced in relationships with the opposite sex; to develop cognitive reappraisal skills
15	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To help participants associate feelings of insecurity, worthlessness, the inability to say no, and shame in friendships with

Table 3 (continued)

Session No.	Content	Used Technique	Purpose
16	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	the underlying emotions and events; to allow catharsis; to develop emotion regulation skills To provide insight and awareness regarding feelings of anger, mistrust, distance, and coldness towards the father; to provide awareness regarding the impact of these feelings on their current relationships; to perform cognitive reappraisal
17	The foreign country game, Cinderella fairy tale	Action, role-taking, group sharing	To develop empathy skills and the ability to understand non-verbal messages; to improve role flexibility by increasing spontaneity and creativity; to understand the sociometric structure
18	Protagonist game	Action, role-taking, doubling, role-reversal, mirroring, surplus reality, group sharing	To gain insight and awareness regarding the factors and emotions underlying the need to control anxiety and feelings of fear; to develop emotion regulation skills
19	The desert island game, the cruise trip game	Action, role-taking, group sharing	To understand the sociometric structure of the group; getting prepared to say goodbye
20	Group statues game, closing	Action, role-taking, group sharing	To gain awareness about the individual's role,

Table 3 (continued)

Session No.	Content	Used Technique	Purpose
			feelings, and relationships within the group; to facilitate saying goodbye; posttest application.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1007/s12144-021-01800-w>.

Availability of Data and Materials The datasets supporting the conclusions of this article are included within the article and its additional files.

Funding Information This research was not grant-funded.

Declarations

Ethics Approval and Consent to Participate Ethical board approval was obtained from Dokuz Eylül University. Informed consent was obtained from all individual participants included in the study. This article does not contain any studies with animals performed by any of the author.

Competing Interests Author declare that they have no competing interests.

Disclosure of Interest On behalf of author, the corresponding author states that there is no conflict of interest.

References

- Aldao, A., Nolen-Hoeksema, S., & Schweizer, S. (2010). Emotion-regulation strategies across psychopathology: A meta-analytic review. *Clinical Psychology Review, 30*, 217–237. <https://doi.org/10.1016/j.cpr.2009.11.004>.
- Arnett, J. J. (2000). Emerging adulthood: A theory of development from the late teens through the twenties. *American Psychologist, 55*(5), 469–480. <https://doi.org/10.1037/0003-066X.55.5.469>.
- Arnett, J. J. (2001). Conceptions of the transition to adulthood: Perspectives from adolescence through midlife. *Journal of Adult Development, 8*(2), 133–143. <https://doi.org/10.1023/A:1026450103225>.
- Arnett, J. J. (2004). *Emerging Adulthood: The winding road from the late teens through the twenties* (pp. 277–278). Oxford University Press.
- Arnett, J. J. (2007). Emerging adulthood: What is it, and what is it good for? *Child Development Perspectives, 1*(2), 68–73. <https://doi.org/10.1111/j.1750-8606.2007.00016.x>.
- Arnett, J. J., & Schwab, J. (2013). *The Clark University poll of emerging adults, 2012: Thriving, struggling, and hopeful* (pp. 27). Clark University.
- Arnett, J. J. (2014). Presidential address: The emergence of emerging adulthood: A personal history. *Emerging Adulthood, 2*(3), 155–162. <https://doi.org/10.1177/216769681454109>.
- Bajaj, B., Gupta, R., & Pande, N. (2016). Self-esteem mediates the relationship between mindfulness and well-being. *Personality and Individual Differences, 94*, 96–100. <https://doi.org/10.1016/j.paid.2016.01.020>.
- Bayram, N., & Bilgel, N. (2008). The prevalence and socio-demographic correlations of depression, anxiety and stress among a group of university students. *Social Psychiatry and Psychiatric Epidemiology, 43*, 667–672. <https://doi.org/10.1007/s00127-008-0345-x>.
- Biolcati, R., Agostini, F., & Mancini, G. (2017). Analytical psychodrama with college students suffering from mental health problems: Preliminary outcomes. *Research in Psychotherapy: Psychopathology, Process and Outcome, 20*(272), 201–209. <https://doi.org/10.4081/ripppo.2017.272>.
- Blanchard-Fields, F., & Coats, A. H. (2008). The experience of anger and sadness in everyday problems impacts age differences in emotion regulation. *Developmental Psychology, 44*(6), 1547–1556. <https://doi.org/10.1037/a0013915>.
- Brewer, S. K., Zahniser, E., & Conley, C. S. (2016). Longitudinal impacts of emotion regulation on emerging adults: Variable- and person-centered approaches. *Journal of Applied Developmental Psychology, 47*, 1–12. <https://doi.org/10.1016/j.appdev.2016.09.002>.
- Breznitz, S. (1986). The effect of hope on coping with stress. In M. H. Appley & R. Trumbull (Eds.), *Dynamics of stress: Physiological, psychological and social perspectives* (pp. 285–305). Plenum Press.
- Broberg, A. G., Hjalmer, I., & Nevenon, L. (2001). Eating disorders, attachment and interpersonal difficulties: A comparison between 18- to 24-year-old patients and normal controls. *European Eating Disorders Review, 9*, 381–396. <https://doi.org/10.1002/erv.421>.
- Büyüköztürk, Ş. (2007). *Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni Spss uygulamaları ve yorum* (8th Ed.) (pp. 79). Pegem Publisher.
- Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2009). *Bilimsel araştırma yöntemleri* (pp. 194–199). Pegem Publisher.
- Byrd, K. M. (2016). Binge drinking in and out of college: An examination of social control and differential association on binge drinking behaviors between college students and their non-college peers. *Sociological Spectrum, 36*(4), 191–207. <https://doi.org/10.1080/02732173.2016.1155516>.
- Clark, T. L., & Davis-Gage, D. (2010). Treating trauma: Using psychodrama in groups. Retrieved from http://counselingoutfitters.com/vistas/vistas10/Article_59.pdf
- Creswell, J. W., & Plano-Clark, V. L. (2017). *Designing and conducting mixed methods Research* (3rd ed), (pp. 77). SAGE.
- Cutuli, D. (2014). Cognitive reappraisal and suppression strategies role in the emotion regulation: An overview on their modulatory effects and neural correlates. *Frontiers. Systems. Neuroscience., 8*(175), 1–6. <https://doi.org/10.3389/fnsys.2014.00175>.
- Damon, W. (2009). *The path to purpose: How young people find their calling in life*, (pp. 6). Free press.
- Dayton, T. (2005). *The Living Stage: A step-by-step guide to psychodrama, sociometry, and experiential group therapy*, (pp. 21–47). Health Communications Inc.
- De Girolamo, G., Dagani, J., Purcell, R., Cocchi, A., & McGorry, P. D. (2012). Age of onset of mental disorders and use of mental health services: Needs, opportunities and obstacles. *Epidemiology and Psychiatric Sciences, 21*(1), 47–57. <https://doi.org/10.1017/S2045796011000746>.

- DiGiuseppe, R., Tafrate, R., & Eckhardt, C. (1994). Critical issues in the treatment of anger. *Cognitive and Behavioral Practice*, 1(1), 111–132. [https://doi.org/10.1016/S1077-7229\(05\)80089-6](https://doi.org/10.1016/S1077-7229(05)80089-6).
- Demir, V., & Gündoğan, N. (2018). The effectiveness of mindfulness based cognitive therapy program on decreasing the emotion regulation difficulties of university students. *Ege Journal of Education*, 19(1), 46–66. <https://doi.org/10.12984/egeefd.332844>.
- Demirtaş, A. S. (2018). The predictive roles of emotion regulation strategies and self-esteem on happiness. *Turkish Studies*, 13(11), 487–503. <https://doi.org/10.7827/TurkishStudies>.
- Diener, E., Sapyta, J. J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry*, 9, 33–37.
- Doğan, T. (2018). The effects of the psychodrama in instilling empathy and self-awareness: A pilot study. *PsyCh Journal*, 7, 227–238. <https://doi.org/10.1002/pchj.228>.
- Doğan, T. (2010). The effects of psychodrama on young adults' attachment styles. *The Arts in Psychotherapy*, 37(2), 112–119. <https://doi.org/10.1016/j.aip.2010.02.001>.
- Dvorak, R. D., Sargent, E. M., Kilwein, T. M., Stevenson, B. L., Kuvaas, N. J., & Williams, T. J. (2014). Alcohol use and alcohol-related consequences: Associations with emotion regulation difficulties. *American Journal of Drug & Alcohol Abuse*, 40, 125–130. <https://doi.org/10.3109/00952990.2013.877920>.
- Eshbaugh, E. M. (2008). Brief report: Gender, social support, and loneliness among residence hall students. *The Journal of College and University Student Housing*, 35(2), 24–33.
- Fassbinder, E., Schweiger, U., Martius, D., Brand-de Wilde, O., & Arntz, A. (2016). Emotion regulation in schema therapy and dialectical behavior therapy. *Frontiers in Psychology*, 7(1373), 1–19. <https://doi.org/10.3389/fpsyg.2016.01373>.
- Flynn, J. J., Hollenstein, T., & Mackey, A. (2010). The effect of suppressing and not accepting emotions on depressive symptoms: Is suppression different for men and women? *Personality and Individual Differences*, 49, 582–586. <https://doi.org/10.1016/j.paid.2010.05.022>.
- Furr, S. R., Westefeld, J. S., McConnell, G. N., & Jenkins, J. M. (2001). Suicide and depression among college students: A decade later. *Professional Psychology: Research and Practice*, 32(1), 97. <https://doi.org/10.1037/0735-7028.32.1.97>.
- Galambos, N. L., Barker, E. T., & Krahn, H. J. (2006). Depression, self-esteem, and anger in emerging adulthood: Seven-year trajectories. *Developmental Psychology*, 42, 350–365.
- Gershoni, J. (2003). *Psychodrama in the 21st century: Clinical and educational applications*, (pp. 49–62). Springer Publishing.
- Gross, J. J. (1998). The emerging field of emotion regulation: An integrative review. *Review of General Psychology*, 2(3), 271–299. <https://doi.org/10.1037/1089-2680.2.3.271>.
- Gross, J. J., & John, O. P. (2003). Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. *Journal of Personality and Social Psychology*, 85(2), 348–362. <https://doi.org/10.1037/0022-3514.85.2.348>.
- Gülgez, Ö., & Gündüz, B. (2015). The effect of dialectical behavior therapy based emotion regulation program on decreasing the emotion regulation difficulties of university students. *Çukurova University Faculty of Education Journal*, 44(2), 191–208.
- Haga, S. M., Kraft, P., & Corby, E. K. (2009). Emotion regulation: Antecedents and well-being outcomes of cognitive reappraisal and suppression in cross-cultural samples. *Journal of Happiness Studies*, 10, 271–291.
- Halperin, E., & Gross, J. J. (2011). Emotion regulation in violent conflict: Reappraisal, hope, and support for humanitarian aid to the opponent in wartime. *Cognition & Emotion*, 25(7), 1228–1236. <https://doi.org/10.1080/02699931.2010.536081>.
- Harkins, L., Pritchard, C., Haskayne, D., Watson, A., & Beech, A. R. (2011). Evaluation of geese theatre's re-connect program: Addressing resettlement issues in prison. *International Journal of Offender Therapy and Comparative Criminology*, 55(4), 546–566. <https://doi.org/10.1177/0306624X10370452> <http://ijo.sagepub.com>.
- Hawkins, K. A., & Cogle, J. R. (2011). Anger problems across the anxiety disorders: Findings from a population-based study. *Depression and Anxiety*, 28, 145–152. <https://doi.org/10.1002/da.20764>.
- Hofmann, S. G., & Asmundson, G. J. G. (2008). Acceptance and mindfulness-based therapy: New wave or old hat? *Clinical Psychology Review*, 28(1), 1–16. <https://doi.org/10.1016/j.cpr.2007.09.003>.
- Holmes, P., Farrall, M., & Kirk, K. (2014). *Empowering therapeutic practice: Integrating psychodrama into other therapies* (pp. 9–22). Jessica Kingsley publishers.
- Hudgins, M. K., & Toscani, F. (2013). *Healing world trauma with the therapeutic spiral model: Stories from the frontlines*. (p.49-75) Jessica Kingsley publishers.
- Huggins, S. P., Rooney, M. E., & Chronis-Tuscano, A. (2015). Risky sexual behavior among college students with ADHD: Is the mother-child relationship protective? *Journal of Attention Disorders*, 19(3), 240–250.
- John, O. P., & Gross, J. J. (2004). Healthy and unhealthy emotion regulation: Personality processes, individual differences, and life span development. *Journal of Personality*, 72, 1301–1334.
- Kellermann, P. F. (1994). Role reversal in psychodrama. In P. Holmes, M. Karp, & M. Watson (Eds.), *Psychodrama since Moreno* (pp. 261–263). Routledge.
- Kellermann, P. F. (1996). Concretization in psychodrama with somatization disorder. *The Arts in Psychotherapy*, 23(2), 149–152. [https://doi.org/10.1016/0197-4556\(95\)00068-2](https://doi.org/10.1016/0197-4556(95)00068-2).
- Kemeny, M. E., Gruenewald, T. L., & Dickerson, S. S. (2004). Shame as the emotional response to threat to the social self: Implications for behavior, physiology, and health. *Psychological Inquiry*, 15(2), 153–160.
- Keyesers, C., & Gazzola, V. (2010). Social neuroscience: Mirror neurons recorded in humans. *Current Biology*, 20(8), R353–R354. <https://doi.org/10.1016/j.cub.2010.03.013>.
- Kipper, D. A., & Ben-Ely, Z. (1979). The effectiveness of the psychodrama double method, the reflection method, and lecturing in the training of empathy. *Journal of Clinical Psychology*, 35(2), 370–375. [https://doi.org/10.1002/1097-4679\(197904\)35:23.0.co;2-y](https://doi.org/10.1002/1097-4679(197904)35:23.0.co;2-y).
- Kipper, D. A., & Ritchie, T. D. (2003). The effectiveness of psychodrama techniques: A meta-analysis. *Group Dynamics, Theory, Research and Practice*, 7(1), 13–25. <https://doi.org/10.1037/1089-2699.7.1.13>.
- Kim, K. W. (2003). The effects of being the protagonist in psychodrama. *Journal of Group Psychotherapy, Psychodrama and Sociometry*, 55(4), 115–127.
- Koh, K. B., Kim, C. H., & Park, J. K. (2002). Predominance of anger in depressive disorders compared with anxiety disorders and somatoform disorders. *Journal of Clinical Psychiatry*, 63(6), 486–492. <https://doi.org/10.4088/jcp.v63n0604>.
- Koleva, M. (2011). Psychodrama and the treatment of women victims of human trafficking: Research report. *International Journal of Psychotherapy*, 15(1), 65–77.
- Laghi, F., Lonigro, A., Pallini, S., & Baiocco, R. (2018). Emotion regulation and empathy: Which relation with social conduct? *The Journal of Genetic Psychology*, 179(2), 62–70. <https://doi.org/10.1080/00221325.2018.1424705>.
- Lousada, O. (1998). Three-layered cake, butter with everything. In M. Karp, P. Holmes, P., & K.B. Tauvan, *The handbook of psychodrama* (Ed.). (pp. 205–227). Routledge.
- Lutz, J., Herwig, U., Opialla, S., Hittmeyer, A., Jäncke, L., Rufer, M., Holtforth, M. G., & Brühl, A. B. (2013). Mindfulness and emotion regulation an fMRI study. *Social Cognitive and Affective Neuroscience*, 9(6), 776–785. <https://doi.org/10.1093/scan/nst043>.

- Moreno, J. L. (1946). *Psychodrama Volume 1*, (pp. 251). Beacon House Press.
- Newman, C. F. (2011). When clients' morbid avoidance and chronic anger impede their response to cognitive-behavioral therapy for depression. *Cognitive and Behavioral Practice*, 18(3), 350–361. <https://doi.org/10.1016/j.cbpra.2010.07.004>.
- Norouzi, M., Zargar, F., & Norouzi, F. (2017). Effectiveness of acceptance and commitment therapy on interpersonal problems and difficulties in emotion regulation among university students. *Iranian Journal of Psychiatry and Behavioral Sciences*, 11(3), e8005. <https://doi.org/10.5812/ijpbs.8005>.
- O'Connor, M., Sanson, A., Hawkins, M. T., Letcher, P., Toumbourou, J. W., Smart, D., & Olsson, C. A. (2011). Predictors of positive development in emerging adulthood. *Journal of Youth and Adolescence*, 40(7), 860–874. <https://doi.org/10.1007/s10964-010-9593-7>.
- Olatunji, B. O., Cisler, J., McKay, D., & Phillips, M. L. (2010). Is disgust associated with psychopathology? Emerging research in the anxiety disorders. *Psychiatry Research*, 175(1), 1–10. <https://doi.org/10.1016/j.psychres.2009.04.007>.
- Özbek, A., & Leutz, G. (2003). *Psikodrama, grup psikoterapisinde sahnesel etkileşim*. Abdülkadir Özbek Psikodrama Enstitüsü. (pp.72-87). Ayrıntı Publisher.
- Pasquini, M., Picardi, A., Biondi, M., Gaetano, P., & Morosini, P. (2004). Relevance of anger and irritability in outpatients with major depressive disorder. *Psychopathology*, 37(4), 155–160. <https://doi.org/10.1159/000079418>.
- Plate, A. J., & Aldao, A. (2017). Emotion regulation in cognitive behavioral therapy: Bridging the gap between treatment studies and laboratory experiments. In book: *The Science of Cognitive Behavioral Therapy*. Elsevier/Academic. <https://doi.org/10.1016/B978-0-12-803457-6.00005-2>.
- Prosen, S., & Jendričko, T. (2019). A pilot study of emotion regulation strategies in a psychodrama group of psychiatric patients. *Journal of Creativity in Mental Health*, 14(1), 2–9. <https://doi.org/10.1080/15401383.2018.1486260>.
- Rizvi, S. L., & Steffel, L. M. (2014). A pilot study of 2 brief forms of dialectical behavior therapy skills training for emotion dysregulation in college students. *Journal of American College Health*, 62(6), 434–439. <https://doi.org/10.1080/07448481.2014.907298>.
- Roisman, G. I., Masten, A. S., Coatsworth, J. D., & Tellegen, A. (2004). Salient and emerging developmental tasks in the transition to adulthood. *Child Development*, 75(1), 123–133.
- Rokach, A. (2000). Loneliness and the life cycle. *Psychological Reports*, 86, 629–642. <https://doi.org/10.2466/pr0.2000.86.2.629>.
- Ryff, C. D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1–28.
- Schnitker, S. A. (2012). An examination of patience and well-being. *The Journal of Positive Psychology*, 7(4), 263–280. <https://doi.org/10.1080/17439760.2012.697185>.
- Schulenberg, J. E., Sameroff, A. J., & Cicchetti, D. (2004). The transition to adulthood as a critical juncture in the course of psychopathology and mental health. *Development and Psychopathology*, 16(4), 799–806. <https://doi.org/10.1017/S0954579404040015>.
- Strauss, A. Y., Kivity, Y., & Huppert, J. D. (2019). Emotion regulation strategies in cognitive behavioral therapy for panic disorder. *Behavior Therapy*, 50(3), 659–671. <https://doi.org/10.1016/j.beth.2018.10.005>.
- Snyder, C. R. (1994). *The psychology of hope: You can get there from here*. (pp.4-5). Free Press.
- Tabachnick, B. G., & Fidell, L. S. (2012). Using multivariate statistics. (6th ed.) (pp.46-53). Pearson.
- Thompson, R. A., & Meyer, S. (2007). Socialization of emotion regulation in the family. In J. J. Gross (Ed.), *Handbook of emotion regulation*. The Guilford Press.
- Totan, T. (2015). Validity and reliability of the Turkish form of the emotion regulation questionnaire (ERQ). *Journal of Cognitive Behavioral Psychotherapy and Research*, 3, 153–161.
- Watersong, A. (2011). Surplus reality: The magic ingredient in psychodrama. *Anzpa Journal*, 20, 18–28.
- Wei, M., Shaffer, P. A., Young, S. K., & Zakalik, R. A. (2005). Adult attachment, shame, depression, and loneliness: The mediation role of basic psychological needs satisfaction. *Journal of Counseling Psychology*, 52(4), 591–601. <https://doi.org/10.1037/0022-0167.52.4.591>.
- Wilmer-Barbrook, C. (2013). Adolescence, asperger's and acting: Can dramatherapy improve social and communication skills for young people with Asperger's syndrome? *Dramatherapy: The Journal of the Association for Dramatherapists*, 35(1), 43–56. <https://doi.org/10.1080/02630672.2013.773130>.
- Whiteman, S. D., McHale, S. M., & Crouter, A. C. (2011). Family relationships from adolescence to early adulthood: Changes in the family system following firstborns'leaving home. *Journal of Research of Adolescent*, 21(2), 461–474. <https://doi.org/10.1111/j.1532-7795.2010.00683.x>.
- Yalom, I. (2002). *The theory and practice of group psychotherapy* (A. Tangör & Ö. Karaçam, trans.), (pp.21-22). Kabalıcı Publisher.
- Yaniv, D. (2012). Dynamics of creativity and empathy in role reversal: Contributions from neuroscience. *Review of General Psychology*, 16(1), 70–77. <https://doi.org/10.1037/a0026580>.
- Yıldırım, A., & Şimşek, H. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri*. (pp. 77) Seçkin Publisher.
- Zimmermann, P., & Iwanski, A. (2014). Emotion regulation from early adolescence to emerging adulthood and middle adulthood: Age differences, gender differences, and emotion-specific developmental variations. *International Journal of Behavioral Development*, 38(2), 182–194.
- Zupančič, M., Komidar, L., & Levpušček, M. P. (2014). Individuation in Slovene emerging adults: Its associations with demographics, transitional markers, achieved criteria for adulthood, and life satisfaction. *Journal of Adolescence*, 37(8), 1–13.
- Tanzi, S., Biasco, G., Baile, W. F. (2014). Enhancing the empathic connection: Using action methods to understand conflicts in end-of-life care. *Journal of Patient Experience*, 1(1), 14–19. <https://doi.org/10.1177/237437431400100104>.
- Kipper, D. A. (1986). *Psychotherapy through clinical role playing*. New York: Brunner/Mazel
- Prosen, S., & Jendričko, T. (2019). A pilot study of emotion regulation strategies in a psychodrama group of psychiatric patients. *Journal of Creativity in Mental Health*, 14(1), 2–9. <https://doi.org/10.1080/15401383.2018.1486260>.

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