Original Article

Investigating the Effectiveness of Group-Based Rational-Emotive-Behavioral Counseling on Parental Mental Health and Social Adjustment

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Abstract

The objective of this study was to investigate the effectiveness of rational-emotive-behavioral counseling on parental mental health and social adjustment. The present study was a quasi-experimental study with a pretest-posttest design and a control group. The statistical population of the present study included all parents of students in Kermanshah city in the academic year of 2018-2019. The sampling method was random cluster sampling. The sample of the study consisted of 60 parents of students in the academic year of 2018-2019, who were equally assigned into three groups (two experimental groups and one control group). Each of the experimental groups received one of the group-based rational-emotive-behavioral therapy or Adlerian therapy. Each of these groups received the considered training approach in eight sessions, two hours per session. Goldberg and Hiler General Health Questionnaire (1979) and Bell's Adjustment Questionnaire (1961) were used to collect the data. In general, the results showed that rational-emotive-behavior group counseling was effective in enhancing parental mental health and social adjustment.

Keywords: Rational-Emotive-Behavioral Counseling, Mental Health, Social Adjustment, Parents

Introduction

The increasing problems of today's human beings have created fears and stresses and have had adverse effects on their physical and mental health [1]. Mental health is a dynamic and complete state of absence of symptoms and the presence of health symptoms that have physical, psychological, and social dimensions. Mental health is one of the branches of psychology and has nowadays drawn the attention of many people due to its special importance [2]. The World Health Organization views mental health as a state of well-being in which everyone is aware of his or her abilities, able to cope with the stresses of his or her living, working efficiently and helping his or her community [3]. The health of people affects not only their own and their family but also the whole community [4]. Social adjustment as one of the most important indicators of mental health is one of the topics that has attracted the attention of many sociologists and psychologists [5]. Adjustment means an individual's ability to adapt to the environment and has various dimensions including social, family, emotional, health, educational, etc.

Adjustment is a general concept that refers to all the strategies used to manage stressful situations and real or unrealistic threats in life. In other words, successful dealing with other people in the community is called the adjustment [1]. One of the most effective ways to increase adjustment and change irrational beliefs is a group-based rational-emotive-behavioral counseling approach that is effective in the treatment of psychological disorders [6,7]. Rational-emotive-behavioral therapy is one of the methods of cognitive reconstruction and is often used when clients have irrational thoughts or beliefs that lead to anxiety, depression or anger [8]. In this theory, the root of individuals' inability to express

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their emotions, followed by emotional inhibition, is in their irrational beliefs. The therapist encourages clients to feel their emotions objectively and reduce their emotional disturbances by focusing on self-expression and changing their beliefs and values [9]. This counseling approach assumes that if clients achieve a new and realistic philosophy of life, they can effectively cope with most of the adverse events of their lives[9]. The effectiveness of rational-emotive-behavioral counseling in reducing irrational thinking styles and reducing anxiety and depression has been shown [9].

Studies conducted in different parts of the world have shown the effectiveness of rational-emotive-behavioral psychotherapy on a variety of components, problems, and psychological disorders, such as anxiety [7, 8, 10]. Several studies have been conducted on the effect of psychological treatments on public health. For example, David, Sezntagotay, Lapa, and Kosman, (2008)[11] showed the effectiveness of three methods of Rational-Emotion-Behavioral Therapy, Beck's Cognitive Therapy, and drug therapy (Fluoxetine). They found that rational-emotive-behavioral therapy and cognitive therapy were more effective in reducing symptoms of depression than drug therapy. Watter [10] concluded that levels of anxiety decreased and self-esteem and tolerance of failure increased in elementary school students who participated in a rational-emotive program.

In a meta-analysis study conducted in 2002, Trip, Wernon & Makmahon [10] found that rational-emotive training programs were more effective in moderating dysfunctional behaviors when compared to other therapeutic interventions. In this regard, they stated that the rational-emotive training method is more effective in enhancing positive internal control and self-concept than personal orientation, self-control, and attributions. They also showed that the level of effectiveness of the rational-emotive training program was effective in lowering anxiety, neuroticism, and negative mental health indicators[10]. Studies conducted by Zorzon and Zyadno (2004), Blanchrosad, Hatzinger, Martinz, Perperyalandorz, and Gostave (2002), Moher, Liksky, Bertagnely, Godkin, Wendrond, Dayer and Daeyk (2000), Mokhtari (2005), Selghi (2005), Hasani (2006), and Hosseinzadeh (2007) have shown the effectiveness of group-based rational-emotive-behavioral therapy in reducing depression in patients with physical disease [12]. Rajabi and Khodaei (2007) found that rational-emotive-behavioral therapy improved general health in the study group [11]. Mariani (1979) concluded that Ellis rational-emotive therapy reduced the level of anxiety of students. Dibvard and Romn (2004) also reported that irrational beliefs and levels of adjustment were inversely correlated, meaning that as irrational beliefs increased, the subjects' adjustment decreased [13]. Given the role of parents in the family and their need to increase and promote mental health and social adjustment, this study was conducted to investigate the effectiveness of rational-emotive-behavioral counseling on parental mental health and social adjustment.

Methodology

Research design: The design of the present study was quasi-experimental with pretest and posttest and a control group. The statistical population of the present study included all parents of Kermanshah students in the academic year of 2018-2019 and the statistical sample consisted of 60 parents of Kermanshah students who were selected by multistage cluster random sampling and were equally assigned into three groups (including two experimental groups and one control group). Each of the experimental groups received a counseling approach (either rational-emotive behavioral method or Adlerian method) and the control group received no training. Pretest and posttest were performed for all three groups.

Research tools:

Goldberg and Hiler General Health Questionnaire (GHQ-28): This questionnaire was developed in 1979 and has 28 questions. The 28-item form of this questionnaire can be applied to everyone in the community. This questionnaire can determine the likelihood of a psychiatric disorder in any individual. The questionnaire has four sub-scales, including physical symptoms, anxiety and insomnia, social dysfunction and depression. The test gives 4 scores for each individual, which 4 scores of it related to subscales and one score is related to sum scores of the subscale, which is the overall score. Its four sub-scales are derived from statistical analysis of answers (factor analysis). The method of scoring the general health questionnaire is in this way that scores zero, 1, 2, and 3 are given for options of A, B, C, and D, respectively. As a result, the individual score on a subscale will range from zero to 21 and the total questionnaire score will be from zero to 84. Each participant's scores on each scale are calculated separately. Then, scores of 4 sub-scales are aggregated and the total score is obtained. In this questionnaire, a lower score indicates better mental health [14]. Cronbach's alpha coefficient of this test was estimated at 0.88. In a meta-analysis study, Williams reported its validity at 0.84 [15].

Bell's adjustment questionnaire: Bell's adjustment questionnaire was used to measure the adjustment of the subjects. The scale was developed by Bell in 1961 and consists of 160 questions and five subscales that measure adjustment in the areas of home adjustment, health adjustment, social adjustment, and occupational adjustment. The subject answers yes or no questions. The scale is scored as zero and one and based on the scores obtained, the level of adjustment of each person in each domain is assessed. A high score indicates less adjustment and lower scores indicate higher adjustment. The total validity of the inventory has been estimated by Bell at 0.94. This scale has been standardized by Delavari for Iranian sports veterans. The reliability of this questionnaire has also been confirmed by Qasemi and Pourseyed [16]. In this study, a 32-item form related to social adjustment was used. Data analysis method: In this study, descriptive and inferential statistics were used. Descriptive statistics including mean, mean, standard

deviation, tables, and charts were used and inferential statistics of multivariate analysis of covariance (MANOVA) was used. Finally, raw scores were calculated and analyzed through SPSS software.

Summary of rational-emotive-behavioral counseling therapy protocol:

Session 1: Introducing the group leader to the members to create a good relationship with the members of the group, motivating the members, and expressing feeling with regard to attending in the group, reviewing the rules of the group (confidentiality, trust, commitment to regularly attending at the sessions, mutual respect of the members, active listening, participating in group discussions, doing homework), identifying the goals and expectations of the group members, assigning homework: Writing major issues of everyday life, writing everyday events, and identifying events, feelings, and behaviors.

Session 2: reviewing of assessments: stating the problems and major issues of the members and feedback and exchange of opinions, examining the Tables (A-B-C), and resolving any problems in making a distinction between them. Retraining of behavior analysis (A-B-C) so that the group members master the behavior analysis issues, assigning homework: writing 10 of worst events of their lives and analyzing them using the A-B-C method, and completing the table of thinking, practicing, and feeling.

Session 3: reviewing homework, examining the tables A-B-C and resolving the possible problems. Teaching Ellis cognitive-behavioral model and introducing dos and don'ts, introducing Ellis irrational beliefs, group discussion, stating some examples of everyday dos and don'ts, assigning homework regarding dos and don'ts in a real-life situation.
Session 4: Reviewing homework, reviewing the dos and don'ts and comparing members' opinions with each other, teaching and assessing the effect of dos and don'ts on catastrophizing and irrational beliefs, giving some examples of dos and don'ts, and group discussion on the issues raised, including assigning homework, including reviewing everyday events recognizing the individual and collective dos and don'ts.

Session 5: reviewing homework and giving psychological training feedback, cognitive reconstruction by replacing rational thoughts with irrational thoughts (Extracting cognitive information, analysis of cognitive perceptions, cognitive change techniques), investigating the impact of irrational thoughts on development of mental disorders and social maladjustment and mental health decline, assigning homework, using cognitive reconstruction, and finding alternative thoughts and their impact on everyday situations.

Session 6: Reviewing psychological training homework: Teaching the ways of increasing mental health and social adjustment with a rational-emotive-behavioral approach, assigning homework, using this approach for replacing rational thoughts with irrational thoughts to enhance the mental health and social adjustment.
Session 7: reviewing homework and resolving the possible problems, teaching interpersonal coping skills and desired social skills of group activity, role-playing to practice behavior model, assigning homework, testing behavioral models and social skills in real everyday situations and presenting a report in the next session.

Session 8: Reviewing homework and giving feedback, summarizing past discussions of expressing members' feelings, receiving feedback from members, appreciation, and acknowledgment.

Data Analysis

Descriptive results

Table 1: Frequency distribution of sample members based on age

Age range	Frequency	Percentage of frequency	Accumulative percentage of frequency
20-30 years	10	% 16.7	% 16.7
31-40 years	37	% 61.7	% 78.3
Above 41 years	13	% 21.7	% 100
Total	60	% 100	

As shown in the table above, out of the 60 samples, 10 (16.7%) were between 20 and 30 years old, 37 (61.7%) were between 31 and 40 years old, and 13 (21.7%) were 41 years and older.

Table 2: Frequency distribution of samples based on education

Level of education	Frequency	Percentage of frequency	Accumulative percentage of frequency
Secondary	18	% 30.0	% 30.0
High school	33	% 55.0	% 85.0
Academic	9	% 15.0	100
Total	60	% 100	

As shown in the table above, 18 (30%) of the samples have a secondary level of education, 33 (55%) have a high school diploma and 9 (15%) have the academic level of education

Table 3: Frequency distribution of samples based on job

Type of parent	Job-status	frequency	Percentage of frequency	Accumulative percentage of frequency
Father	unemployed	2	% 7.4	% 7.4
	Self-employed	14	% 51.8	% 59.2
	Governmental	11	% 40.8	% 100
	Sum	27	% 100	
Mothers	Housewives	15	% 45.5	% 45.5
	Self-employed	8	% 24.3	% 69.8
	Governmental	10	% 30.2	% 100
	Sum	33	% 100	

As shown in the table above, among the fathers, 2 (7.4%) were unemployed, 14 (51.8%) were self-employed, 11 (40.8%) had governmental jobs. Among the mothers, 15 (45.5%) were housewives, 8 (24.3%) were self-employed, 10 (30.2%) had governmental jobs.

Table 4: Frequency distribution of samples based on gender

Gender	Frequency	Percentage of frequency	Accumulative percentage of frequency
Female	33	% 55	% 55
Male	27	% 45	% 100
Sum	60	% 100	

As shown in the table above, 60 (100%) of the samples were female.

Table 5: Descriptive indices of pretest and posttest scores on mental health subscales

Variable	Group	subscale	Mean	SD
Mental health	Pretest of the control group	Physical symptoms	14.1	2.251
		Anxiety	13.6	3.156
		Social	15.1	2.415
		Depression	16.2	3.448
		Total	49.3	2.317
	Posttest of the control group	Physical symptoms	14.9	2.923
		Anxiety	14.6	1.286
		Social	15.9	2.558
		Depression	16.8	2.377
		Total	51.3	4.914
	Pretest of experimental 1 group	Physical symptoms	15.2	4.489
		Anxiety	15.3	2.603
		Social	14.4	2.442
		Depression	17.5	3.794
		Total	50 .6	3.756
	Posttest of experimental 1 group	Physical symptoms	19.8	2.480
		Anxiety	20.1	2.605
		Social	21.2	1.549
		Depression	23.7	2.706
		Total	64.9	2.886
	Pretest of experimental 2 group	Physical symptoms	13.9	3.371
		Anxiety	14.6	2.830
		Social	15 .2	2.573
		Depression	16.3	4.682
		Total	48.1	2.849

Posttest of experimental 2 group	Physical symptoms	22.2	2.490
	Anxiety	21.1	2.643
	Social	20.4	1.947
	Depression	25.7	2.113
	Total	53.6	3.277

Descriptive indices showed a mean and standard deviation of pretest and posttest scores of mental health subscales in control and experimental groups. As seen, the mean values of posttest scores in the control group did not change compared to the pretest and both experimental groups, but the posttest scores of mental health dimensions changed in comparison to the pretest scores.

Table 6: Descriptive indices of pretest and posttest scores on social adjustment subscales

Variable	Group	subscale	Mean	SD
Social adjustment	Pretest of the control group	Home adjustment	4.3	3.109
		Well-being adjustment	2.9	2.522
		Social adjustment	3.9	2.115
		Job adjustment	4.5	4.269
	Posttest of the control group	Home adjustment	4.5	4.305
		Well-being adjustment	3.2	1.237
		Social adjustment	4.0	3.441
		Job adjustment	4.4	3.394
	Pretest of experimental 1 group	Home adjustment	4.0	2.715
		Well-being adjustment	3.0	2.194
		Social adjustment	3.7	3.984
		Job adjustment	4.2	3.366
	Posttest of experimental 1 group	Home adjustment	6.3	4.256
		Well-being adjustment	5.8	4.397
		Social adjustment	5.1	2.557
		Job adjustment	5.0	2.809
	Pretest of experimental 2 group	Home adjustment	3/9	1.379
		Well-being adjustment	4.5	3.166
		Social adjustment	4 .5	3.654
		Job adjustment	3.7	4.354
	Posttest of experimental 2 group	Home adjustment	6.4	3.455
		Well-being adjustment	6.1	3.209
		Social adjustment	5.9	3.485
		Job adjustment	6.0	3.285

Descriptive indices showed a mean and standard deviation of pretest and posttest scores of social adjustment subscales in control and experimental groups. As seen, the mean values of posttest scores in the control group did not change compared to the mean values of the pretest, and in both experimental groups, posttest scores of the dimensions of social adjustment changed compared to pretest scores.

Inferential results

Table 7: Investigating the normality of pretest and posttest scores of social adjustment subscales in three groups

Variable	Group	N	pretest		posttest	
			Shapiro-Wilk statistics	sig	Shapiro-Wilk statistics	sig
Home adjustment	Control	20	0 .949	0.480	0.920	0.168
	Experimental 1	20	0.945	0.415	0.914	0.136
	Experimental 2	20	0.948	0.455	0.920	0.171
Well-being adjustment	Control	20	0.912	0.124	0.897	0.072
	Experimental 1	20	0.898	0.073	0.950	0.486
	Experimental 2	20	0.955	0.568	0.954	0.550
Social adjustment	Control	20	0.965	0.748	0.911	0.120

	Experimental 1	20	0.849	0.013	0.925	0.203
	Experimental 2	20	0.891	0.057	0.890	0.057
Job adjustment	Control	20	0.926	0.207	0.960	0.670
	Experimental 1	20	0.923	0.188	0.979	0.953
	Experimental 2	20	0.957	0.603	0.948	0.459

Table 4-7 shows the normality of pretest and posttest scores of social adjustment subscales in the control and experimental groups. It is observed that the Shapiro-Wilk statistic for all dimensions of social adjustment is close to one and its corresponding significant value in the pretest and posttest is greater than 0.05, meaning that the data in the three study groups at following normal distribution 95% confidence level.

Table 8: Investigating the normality of pretest and posttest scores of mental health subscales in three groups

Variable	Group	N	pretest		posttest	
			Shapiro-Wilk statistics	sig	Shapiro-Wilk statistics	sig
Physical symptoms	Control	20	0.939	0.472	0.936	0.465
	Experimental 1	20	0.912	0.432	0.975	0.593
	Experimental 2	20	0.935	0.469	0.922	0.449
Anxiety	Control	20	0.955	0.570	0.979	0.596
	Experimental 1	20	0.893	0.096	0.951	0.502
	Experimental 2	20	0.918	0.436	0.963	0.586
Social	Control	20	0.947	0.498	0.909	0.114
	Experimental 1	20	0.899	0.107	0.936	0.470
	Experimental 2	20	0.896	0.102	0.901	0.109
Depression	Control	20	0.936	0.465	0.971	0.594
	Experimental 1	20	0.901	0.109	0.988	0.601
	Experimental 2	20	0.940	0.475	0.959	0.579
Total	Control	20	0.961	0.583	0.971	0.578
	Experimental 1	20	0.977	0.594	0/.	0.598
	Experimental 2	20	0.933	0.458	0.950	0.561

Table 8 shows the normality of the pretest and posttest scores of the mental health subscales separately in the control group and the two experimental groups. It is observed that the Shapiro-Wilk statistic for all mental health dimensions is close to one and its corresponding significant value in pretest and posttest is greater than 0.05, meaning that the data in the three study groups follow normal distribution at 95% confidence level.

Rational-emotive-behavioral counseling is effective in mental health.

Testing the assumptions

Homogeneity of covariance matrices

Table 9: Box's M test for examining the homogeneity of covariance matrices At posttest stage in mental health dimensions in control and experimental groups (Rational-Emotive-Behavioral Therapy)

Significance value	Df 2	Df 2	F	Box's M
0.512	2950.308	6	0.504	3.209

According to Table 9, Box's M results for examining the equality of covariance matrices observed in posttest scores of mental health dimensions between the two experimental and control groups (treatment with rational-emotive-behavioral approach) show that the significance value obtained for F = 0.504 is greater than 0.05, so the assumption of equality of observed covariance matrices is confirmed.

Homogeneity of variances

Table 10: Leven's test for homogeneity of variance of mental health scores in control and experimental groups (treatment with rational-emotive-behavioral counseling approach)

Variable	F	Df 1	Df 2	Significance level
Posttest of physical symptoms	2.115	1	40	0.072
Posttest of anxiety	3.005	1	40	0.106
Posttest of social adjustment	1.605	1	40	0.052
Posttest of depression	3.714	1	40	0.128
Total score	2.399	1	40	0.089

According to Table, 10 the results of the Leven's test for examining the homogeneity of variances of error of scores of mental health dimensions in the two control and experimental groups (treatment with rational-emotive-behavioral approach) show that the significant value obtained for all F values is greater than 0.05, so the assumption of homogeneity of variance of the variables is confirmed

Table 11: Multivariate analysis of covariance for comparing the mean scores of mental health dimensions in two control and experimental groups (treatment with rational-emotive-behavioral approach)

Effect	index	value	F	Degree of freedom	The error of degree of freedom	significance
Group	Pillai's Trace	1.216	25.414	3	35	0.001
	Wilks Lambda	2.406	25.414	3	35	0.001
	Hotelling's Trace	1.263	25.414	3	35	0.001
	Roy's Largest Root	1/.	25.414	3	35	0.001

Table 11 shows the effects of the independent variables of the group (control and experiment-treatment with rational-emotive-behavioral approach) and the pretests of mental health dimensions. As seen, all four tests of Pillai's Trace Wilks Lambda, Hotelling's Trace and Roy's Largest Root for posttest scores were significant at P <0.01 and it was concluded that independent group variable had a significant effect on posttest scores of mental health dimensions.

Table 12: Inter-subject effect tests for comparing the mean scores of mental health dimensions in the control and experimental groups (treatment with rational-emotive-behavioral approach)

Source of variations	Dependent variable	Sum of squares	df	Squared mean	F	significance	Effect size	Test power
Group	Posttest of physical symptoms	126.365	1	126.365	15.842	0.001	0.439	0.992
	Posttest of anxiety	156.378	1	156.378	26.057	0.001	0.712	0.964
	Posttest of social adjustment	102.477	1	102.477	48.538	0.001	0.493	0.945
	Posttest of anxiety	169.598	1	169.598	23.691	0.001	0.549	0.951
	Total score	149.667	1	149.667	25.647	0.001	0.602	0.978

Table 12 shows the results of the inter-subject effect tests for comparing the mean scores of the mental health dimensions in the control and experimental groups (treatment with a rational-emotive-behavioral approach). According to Table 4-20, for the source of group variations, the F-test statistic for the dimensions of physical symptoms, anxiety, social adjustment, depression, and total score were 15.842, 26.057, 48.538, 23.691, and 25.647, respectively, indicating a significant difference between the posttest scores in the two experimental (treatment with rational-emotive-behavioral approach) and control groups (P <0.01). Therefore, the null hypothesis of the research is rejected and the opposite hypothesis on the effectiveness of rational-emotive-behavioral therapy on enhancing mental health is accepted. It is also observed that the size of the effect of treatment with a rational-emotive-behavioral approach on enhancing mental health for the five mentioned mental health dimensions was 0.43, 0.71, 0.49, 0.54, and 0.60, respectively.

Rational-emotive-behavioral counseling is effective in social adjustment.

Testing the assumptions

Homogeneity of covariance matrices

Table 13: Box' M test of homogeneity of covariance matrices for posttest of social adjustment dimensions in two control and experimental groups (treatment with the rational-emotive-behavioral approach.

Box's M	F	Df1	Df2	sig
3.214	0.495	6	2064.936	0.709

Based on Table 13, Box's M test to examine the equality of covariance matrices observed in posttest scores of social adjustment dimensions between the two control and experimental groups (treatment with rational-emotive-behavioral approach) showed that the significance value was obtained at F = 0.495 that is greater than 0.05, so the assumption of covariance matrices observed for dependent variables is confirmed.

Homogeneity of variances

Table 14: Leven's test for examining the homogeneity of variance in social adjustment dimensions in control and experimental groups (treatment with rational-emotive-behavioral approach)

Variable	F	Df1	Df2	sig
Posttest of home adjustment	0.955	1	40	0.946
Posttest of well-being adjustment	0.749	1	40	0.788
Posttest of social adjustment	0.885	1	40	0.771
Posttest of job adjustment	1.313	1	40	0.901

According to Table 14, the results of Leven's test for examining the homogeneity of variances of error scores of social adjustment dimensions in the control and experimental groups (treatment with rational-emotive-behavioral approach) show that the significance value obtained for all F values is greater than 0.05, so the assumption of homogeneity of variance of is confirmed for variables.

Table 15: Multivariate analysis of covariance for comparing mean scores of social adjustment dimensions in control and experimental groups (treatment with rational-emotive-behavioral approach)

Effect	Index	Value	F	Degree of freedom	The error of degree off freedom	sig
Group	Pillai's Trace	0.923	29.533	3	35	0.001
	Wilks Lambda	0.914	29.533	3	35	0.001
	Hotelling's Trace	2.414	29.533	3	35	0.001
	Roy's Largest Root	1.335	29.533	3	35	0.001

Table 15 shows the significance of the effect of the independent variables of the group (control and experiment groups, treatment with rational-emotive-behavioral approach) and the pretests of social adjustment dimensions. As seen, all four tests of Pillai's Trace Wilks Lambda, Hotelling's Trace and Roy's Largest Root had a significant effect on the social adjustment scores.

Table 16: Inter-subject effect tests for comparing the mean scores of social adjustment dimensions in the control and experimental groups (treatment with rational-emotive-behavioral approach)

Source of variations	Dependent variable	Sum of squares	df	Squared mean	F	sig	Effect size	Test power
Group	Posttest of home adjustment	214.552	1	214.552	21.244	0.001	0.512	0.994
	Posttest of well-being adjustment	123.788	1	123.788	23.119	0.001	0.457	0.875
	Posttest of social adjustment	155.216	1	155.216	29.110	0.001	0.681	0.968
	Posttest of job adjustment	177.955	1	177.955	17.458	0.001	0.833	0.995

Table 16 shows the results of the inter-subject effect tests for comparing the mean scores of social adjustment dimensions in the control and experimental groups (treatment with rational-emotive-behavioral approach). According to Table 4-24, for the source of group variations, F statistic test for home adjustment, well-being adjustment, social adjustment, and job adjustment were 21.224, 23.011959m 29.110, 17.458, respectively. The difference between the posttest scores in the two experimental groups (treatment with rational-emotive-behavioral approach) and the control group was significant at P <0.01. Therefore, the null hypothesis is rejected and the opposite hypothesis on the effectiveness of the rational-emotive-behavioral approach in increasing social adjustment is accepted. It is also observed that the size of the effect of treatment with a rational-emotive-behavioral approach on increasing social adjustment for the four mentioned dimensions of social adjustment was 0.51, 0.45, 0.68, and 0.83, respectively.

Discussion and Conclusion

The results of covariance analysis showed that rational-emotive-behavioral counseling is effective in mental health. The results of this hypothesis are consistent with those of the studies conducted by Mohammadi and Mousavi (2011), Manoochehri, Zandipour, Pourshahriari and Mirdamadi (2006), Tarkhan (2006), as quoted by Orakai Vaziri Nasab and Alipour (2015), and Chiches (2015) [14, 17-20]. In explaining these results, it can be stated that rational, emotive, behavioral therapy claims that the root of emotional problems is being irrational and it emphasizes the reconstruction of irrational beliefs and challenging with automatic thoughts, and the goal of this therapy is cognitive reconstruction. Generally, ten cognitive errors (cognitive distortions) and thirteen dysfunctional beliefs have been identified as the key factors in the development of emotional problems and they are recognized in the treatment process and their reconstructions are trained for the people. Since this treatment combined with cognitive reconstruction of the individual and replacing irrational thoughts with rational thoughts increases positive emotions and creates effective behaviors and reduces inappropriate negative emotions and irrational behaviors in personal and social life, it finally can enhance the mental health and makes a person responds more effectively to the unpleasant events of life by adopting a new philosophy and optimistic and rational interpretation, leading to enhanced mental health and reduced mental illnesses. Therefore, it can be stated that rational-emotive-behavioral counseling is effective in enhancing mental health. Also, the results of covariance analysis showed that rational-emotive-behavioral counseling is effective in enhancing social adjustment. The results of this hypothesis are consistent with the results of the studies conducted by Paydar (2018), Nahidpour, Hamidi, Zamloo, and Gholkhani (2013), Hosseinian, Ghasemzadeh, Alavi, and Hashemi, and Bakhshi (2014), Fereydouni, Kohikar, Famidi, and Forouzandeh (2017), Birimani, Asadi, and Khawjund (2018), Shahi and Owjizadeh (2014), Gram (2015), Pele Rone and Spinella, Sidoti and Maykich (2015) [13, 21-27].

In explaining these results, it can be stated that adjustment as one of the most important indicators of mental health has attracted the attention of many sociologists, psychologists, and especially educators in recent decades and each person's growth and development depends on his or her adjustment with other people like friends, family, relatives, neighbors, and so on. Social growth not only is effective in adapting to those people who are around the person, but also effective in career success and social progress in the future. Adjustment is consistent with the concept of externalization in Piaget's theory. In externalization, one's cognition changes with respect to the inputs, and a kind of adjustment between the schemas and the reality around the person is created as a result of this change. Ellis's rational-behavioral theory is one of the important theories in psychology. Philosophically, Ellis's theory goes back to the thoughts of some Stoic philosophers, especially Epictetus. Epictetus believed that humans are not disturbed by things, but their attitude towards the issues distribute them. The basic assumption of rational behavioral-emotional therapists is that behavior and emotion are affected by cognitive processes. Albert Ellis believes that mental illness stems from misconceptions, rooted in irrational beliefs. Beliefs are irrational because they are non-logical and not empirical, that is, they do not confirm the facts of one's life. They also dysfunctional, meaning that they cause emotional and behavioral harm to a person. Using rational-emotive-behavioral techniques helps people express their strong emotions when they have problems. However, this treatment distinguishes good feelings of anxiety, grief, and feeling of fear, depression, anger, and regret. This method teaches people how to cope with their life problems and feel better when faced with problems. As one achieves a new philosophy in this treatment method and this new philosophy causes him or her to abandon irrational expectations of oneself and others and the world, social adjustment increases. Hence, it can be stated that rational-emotive-behavioral counseling is effective in enhancing social adjustment.

Research limitations

1. Since the research tool was a self-reporting questionnaire, the obtained information and the subjects' insights and feelings are more subjective and intangible.
2. Since the present study was conducted on parents of Kermanshah, its generalization to parents in other cities should be done with caution.
3. Due to limitations in place and time of holding the courses, it was no possible to follow-up the subjects
4. Due to using the questionnaire tool, there was a possibility of social bias by the subjects

Research recommendations

1. It is recommended to investigate the impact of acceptance and commitment therapy on mental health and social adjustment among adolescent girls and boys in Kermanshah.

2. It is recommended to conduct a study to compare the effectiveness of acceptance and commitment and Adlerian-based therapeutic approaches on aggression, mental health, and social adjustment in adolescents in Kermanshah.
3. It is recommended for parents and educators to use school counselors to promote mental health by conducting several workshops during an academic year.
4. It is recommended for school counselors to assess parents' mental health and social adjustment during specific sessions and hold specific courses in this regard.

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