

A Comparative Study of the Impact of Emotional Focused Therapy and Stress Inoculation Training on Reduction of Anger in Delinquent Adolescents

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ABSTRACT

The effect of Emotional-Focused-Therapy (EFT) and Stress-Inoculation-Training (SIT) on anger reduction in Tehran delinquent adolescent boys was studied. The population includes all delinquent young boys of Tehran Correction Reformatory House Silberberg Anger-Questionnaire (STAXI-2) was used for anger measurement. 30 subjects were randomly selected. Ten EFT, SIT group counseling sessions (1.5-2hrs) were respectively executed for each experimental group. There was no interference in the control group. The statistical methods were covariance, block-variance analyses. The results show that both group methods influence the decrease in the subjects' total-index-of-anger, anger control-in, control-out, state-anger, state-verbal-anger. The difference between EFT, SIT effects was meaningless.

KEYWORDS: Emotional focused therapy; Stress inoculation training; Anger; Adolescents; Delinquen.

1. INTRODUCTION

The adaptive value of anger is evident and its usefulness in being linked to threat, providing potential aggressiveness for facing threats and preparing information for detecting priorities and expectations is also known (Novaco & Garouies, 1994; cited by Oneil, 1999).

Treating anger is a challenging clinical issue. Anger, itself, is a functional usual and adaptively valued emotion which can prepare/provide psychological resources, strengthen behaviors for corrective activities and facilitate resistance. However, this emotion, embedded in our daily life, has many characteristics of clinical disorders and is the cause of many behaviors that are violent and against the law or the social values (Ansari, 1996). In fact, the problematic feature of the very emotion is its dysregulation, i.e. its activation, expression and effect can lead to negative physical, psychological, environmental, interpersonal, ... consequences in case there is no proper management (Novaco & Robins).

Therefore, if we do not learn to control our anger, it would control us. According to the studies, many people do not know the skills required for anger control (Cummins, 2006).

Studies indicate that anger has a direct and meaningful effect on delinquency in adolescents (Maschi & Bradley, 2008). The rate of delinquent behaviors has had an ascending trend within the recent years and the average age of committing delinquency, especially accompanied by violence has decreased (Heaven, 2001).

Delinquency is a multi-causal phenomenon (Mathern & Thomas⁸, 2001). Several studies show that the rate of anger in delinquent persons is higher than normal people (Bor, 2001; Darden & Ginter, 1996; cited by Heaven, 2001, Gorapchioglu & Erdogan, cited by Eftekhari, 2004, Taghilou, 2004).

Anger is an emotional variable which can cause aggressive behaviors in case it is not expressed in a healthy, controlled manner (Lau, 2001).

Among the common psychological methods of treatment, Emotional Focused Therapy (EFT) and Stress Inoculation Training (SIT) were used in this study to reduce anger in delinquent young boys. The principles and basics of EFT, based on client centered relational principles and Gestalt and other experiential methods, was first raised by Johnson & Greenberg in early 1980. This approach is the foundation in the construction of the self. Emotions are the key determinants of self-organization. In such a structure, therapists are viewed as coaches for controlling and regulating emotions. S/he would create and maintain a therapeutic alliance, access and re-formulate emotions and reconstruct key interactions (Johnson, 2005) to help people become aware of, accept and make sense of their emotional experiences. Accordingly, they reinforce emotional and sensation awareness, regulation and change in a person (Greenberg, 2004).

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EFT is assessed against many experiential studies like the ones conducted by Greenberg and Paivio (1997), Mc Queeny, Stanton & Sigmon (1997), Paivio and Nieuwenhuis (2001), Dessaules and Johnson (2003), Sexton, Weeks & Robbins (2003), Marhamati (2007), Rasouli, Shafie Abadi and Delavar (2007) and Hassani (2008). All the mentioned studies have confirmed the effectiveness of the approach in fields like marriage satisfaction, infertility, reducing psychological (anxiety, stress and disappointment) and family disorders (communication and sexual problems) and improving psychological health. Another successful therapeutic approach is a treatment model called Stress Inoculation Training which was first posed by Michenbaum (1985). This is a kind of multi-dimensional, multi-lateral behavioral-cognitive intervention, the aim of which is to provide sources as well behavioral-cognitive skills for references so that they can face tough situations and regulate their reactions against stress. This method includes three steps: a(n) conceptual//education phase, a rehearsal phase and application training (Minkin, 2007). The efficiency of the approach in reducing anger and aggressiveness is confirmed by many studies including Novaco (1997), Schlichter & Horan (1981), Feindler & Fremouw (1983), Bistline & Frieden (1984); cited by Cory, 1996, Wilcox (1990), Apter (1995), Kendal (2000), Mc Dide (2007), Minkin (2007), Sadeghi (2001) and Ansari (2006).

Hence, considering the few scientific researches carried out on the efficiency of EFT and SIT approaches in the Iranian society, the article aims at comparing the efficiency of the two methods in reducing anger in adolescent delinquents and finding out if there is a difference between the effect of EFT and SIT on the anger scale.

1. Body

The method of conducting the research is a quasi-experimental which includes an unequal control group plan. Tables, graphs, means and standard deviations are used in the descriptive statistics section and covariance and blocking variance analyses as well as Teukey follow up test were used in the inferential statistics section.

The statistical population of the research consisted of all delinquent young boys, approximately 300 persons, kept at Tehran Reformatory House of Correction. In order to avoid the decrease in the number of the cases, clients imprisoned for more than two months, based on their type of crime, were selected. Then, following the coordination made, Spilberger Anger Questionnaire (STAXI-2) was distributed among 50 subjects. Using the random sampling method, 30 cases interested in taking part in group gatherings had anger scores of higher than the standard level were selected. They were randomly and by lottery placed in three 10-member groups, i.e. two case group and one control group.

2. METHOD

Following the selection of statistical samples and their random placement in case and control groups, Spilberger Anger Questionnaire was complementarily given to the juvenile delinquents as a pre-test. Before giving the pre-test, the dependent variables were determined in the following manner. EFT and SIT group counselling methods were correspondingly held in 7 and 8 member groups (within 10 sessions) due to the subjects' decline; the sessions were held weekly for 1.5-2 hours. There was no intervention in the control group and in the last session, the STAXI-2 questionnaire was given to all subjects as a post test. The obtained data were then analyzed. The subjects of SIT sessions include topics like acquaintance, making a proper relationship based on cooperation, detecting the interactive nature of anger and re-conceptualization, studying anger consequences and teaching relaxation, cognitive restructuring, teaching methods of problem solving, distraction technique, self-instruction and self monitoring in addition to directed inner speech and providing gradual exposure to reality in addition to summarizing the skills. Furthermore, the topics discussed in EFT group counselling sessions were acquaintance, making a proper relationship, empathic attachment, discovering and evaluating emotions, the de-escalation cycle and discovering it, detecting primary and secondary emotions in every interactional positions, restructuring cycle, regulating and reorganizing emotional responses, teaching mental visualization, role playing and summarizing the learned skills.

INSTRUMENT

The instrument was the revised Spilberger Anger Questionnaire (STAXI-2) which can be implemented on persons 16 years and above with minimum 5 years of schooling. The questionnaire contained 57 questions as well as 6 scales, 5 sub-scales and one index of anger (Spilberger, 1999).

In studies of Spilberger (1983), convergent and divergent validity were calculated and the reliability of the instrument was reported at 0.902 based on Chronbach's α coefficient. The α coefficient of anger case scales (0.90) were reported at 0.82, 0.89 and 0.70 for anger quality, angry temperament and reaction, respectively. Moreover, α coefficient of anger express out, express in, control and expression index were all satisfactory.

In this study, α coefficients of the scales were calculated for 120 male subjects by Izakian (2002). The results were reported at the following rates: 0.64, 0.58, 0.75 and 0.77 for anger internal express, external and internal

control, correspondingly. Mokhtari (2001), also, conducted correlation scales of Ayzenk’s personality questionnaire, Spilberger’s state-trait anxiety questionnaire and factorial model of anger on 600 students of Isfahan University and 30 psychopathic patients. The findings were compatible with that of Spilberger. Furthermore, Navidi (2006) conducted STAXI-2 along with adaptability and public health questionnaires on 170 male high school students. Findings of the said studies showed that the questionnaire was sufficiently valid and reliable and its precision has been confirmed in several researches.

3. RESULTS

Table 1 shows mean and standard deviation rates of anger scale post test in case and control groups. MANOVA (Multiple analyses of variance) was used for inferential statistics due to the presence of several variables. Considering the presence of homogeneity of variance and covariance in the present research, Pillais Trace, the most appropriate and precise test in this case, was investigated. However, since there was no linear combination which is a pre-assumption of MANOVA and as Pillais Trace is not meaningful at 95 CI, covariance analytical method was used.

Table 1. Descriptive statistics indices of index of anger (AX) scales in a 25-member group of delinquents

Variables	Groups	N	Mean	Std. Deviation
Anger express out		25		
Control		10	18.40	6.18
SIT		8	17.50	6.11
EFT		7	19.71	3.59
Anger express in		25		
Control		10	18.60	4.78
SIT		8	19.37	4.04
EFT		7	20.42	2.93
Anger control out		25		
Control		10	14.80	4.80
SIT		8	22.25	6.49
EFT		7	22.14	3.67
Anger control in		25		
Control		10	13.80	4.10
SIT		8	22.12	7.31
EFT		7	22.14	3.67
Anger expression index		25		
Control		10	56.40	6.96
SIT		8	37.50	12.63
EFT		7	43.42	4.85
State anger		25		
Control		10	31.10	9.42
SIT		8	28.25	7.90
EFT		7	30.42	6.75
Angry feeling		25		
Control		10	13.40	1.96
SIT		8	10.87	2.99
EFT		7	11.85	2.91
Verbal anger expression tendency		25		
Control		10	9.80	3.48
SIT		8	8.25	2.54
EFT		7	9.57	2.57
Physical anger expression tendency		25		
Control		10	8.50	4.52
SIT		8	9.12	3.39
EFT		7	9	2.76
Trait anger		25		
Control		10	18.80	6.44
SIT		8	18.87	6.19
EFT		7	20	2.70
Angry temperament		25		
Control		10	9	4.24
SIT		8	8.37	3.29
EFT		7	9.14	2.03
Angry reaction		25		
Control		10	9.80	2.93
SIT		8	10.50	2.97
EFT		7	10.85	1.67

In order to test the major hypothesis stating that “there is a difference between the effectiveness of EFT and SIT on reducing anger in male juvenile delinquents”, we first broke it into the following sub-hypotheses:

Sub-hypothesis 1: Group counselling using EFT and SIT approaches is effective in “state anger” rate.

Covariance method of analysis was used to test the hypothesis; however, since the assumptions could not be established, the blocking variance analysis was used. The results are displayed in table 2.

Table 2. Calculation summary of blocking variance analysis of “state anger” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	283.781	2	141.890	4.610	0.023
Pre-test score	672.165	1	672.165	21.840	0.000
Error	584.748	19	30.776		

The findings showed that the pre-test had a significant effect ($P < 0.01$, $F = 21.840$); also, the effect of the independent variable is statistically meaningful by omitting the moderating variable (pre-test) ($P < 0.05$, $F = 4.610$). In general, the two therapeutic methods decreased the state anger rate in the subjects.

Sub-hypothesis 1.1: Group counselling using EFT and SIT approaches is effective in “angry feeling” rate.

The method used for examining the hypothesis was the covariance analysis. Due to the fact that null hypothesis of regression coefficients homogeneity of the independent and covariant variables can be rejected ($P < 0.05$, $F = 13.07$), the blocking variance analysis was used instead of the said method. The results are demonstrated in table 3.

Table 3. Calculation summary of blocking variance analysis of “angry feeling” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	30.191	2	15.095	3.07	0.07
Pre-test score	52.405	1	52.405	10.65	0.004
Error	93.417	19	4.917		

The displayed results show that the effect of pretest was statistically meaningful ($P < 0.01$, $F = 10.65$) and the impact of the independent variable is not significant in case of omitting the moderating variable ($P > 0.05$, $F = 3.07$). Thus, it can be concluded that changes in the dependent variable are mainly due to the pretest effect and the independent variable did not have any impact.

Sub-hypothesis 1.2: Group counselling using EFT and SIT approaches is effective in “verbal anger expression tendency” rate.

Since the assumptions of covariance analysis method could not be established, the blocking variance analysis was used as the replacing statistical test. The results are summarized in table 4.

Table 4. Calculation summary of blocking variance analysis of “verbal anger expression tendency” subscale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	36.351	2	18.176	3.582	0.048
Pre-test score	61.029	1	61.029	12.028	0.003
Error	96.407	19	5.074		

The results show that the effect of pretest was significant ($P < 0.01$, $F = 12.028$), i.e. the pretest score has influenced the post-test and the effect of the independent variable is also meaningful by omitting the moderating variable ($P < 0.05$, $F = 3.582$). Therefore, it can be said that the two approaches lead to a decrease in the verbal expression of anger in adolescents.

Sub-hypothesis 3.1: Group counselling using EFT and SIT approaches is effective in “physical anger expression tendency” rate.

Since the assumptions of covariance analysis method could not be established, the blocking variance analysis was used as the replacing statistical test. The results are summarized in table 5.

Table 5. Calculation summary of blocking variance analysis of “physical anger expression tendency” subscale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	16.710	2	8.355	1.473	0.254
Pre-test score	146.324	1	146.324	25.796	0.000
Error	107.774	19	5.672		

The findings show that the effect of pretest was meaningful ($P < 0.01$, $F = 25.796$). It can be concluded that changes of the dependent variable was mainly associated with the impact of retest and the independent variable did not have any effect ($P > 0.05$, $F = 1.473$).

Sub-hypothesis 2: Group counselling using EFT and SIT approaches is effective in “trait anger” rate.

To examine the hypothesis, covariance analysis was used. The trait anger score was considered as the covariant variable. Table 6 represents the results.

Table 6. Calculation summary of covariance analysis of “trait anger” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Covariant variable	477.743	1	477.743	48.064	0.000
Groups	53.546	2	26.773	2.694	0.091
Error	208.732	21	9.940		
Total	9871	25			

The results indicate that the covariant variable (pretest) affected the dependent variable. However, the independent variable did not affect the dependent variable by omitting the covariant variable ($P > 0.05$, $F = 2.694$). It can be said that the two approaches did not influence the trait anger in adolescents.

Sub-hypothesis 2.1: Group counselling using EFT and SIT approaches is effective in “angry temperament” rate.

The covariance analysis was used to study the hypothesis and the results are shown in table 7.

Table 7. Calculation summary of covariance analysis of “angry temperament” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Covariant variable	130.993	1	130.993	20.881	0.00
Groups	28.768	2	14.384	2.293	0.126
Error	131.739	21	6.273		
Total	2219	25			

Considering the information presented in the table, it can be concluded that the covariant variable (pretest) has influenced the dependent variable. Therefore, all changes of the dependent variable are the result of the covariant variable and the independent variable did not play any roles ($P > 0.05$, $F = 2.293$). It means the therapeutic approaches did not affect the decrease in angry temperament of the subjects.

Sub-hypothesis 2.2: Group counselling using EFT and SIT approaches is effective in “angry reaction” rate.

Covariance analysis was used to examine the hypothesis but since the assumptions could not be established, blocking variance was employed. The results are presented in table 8.

Table 8. Calculation summary of blocking variance analysis of “angry reaction” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	3.248	2	1.624	0.374	0.693
Error	50.422	1	50.422	11.610	0.003
Total	82.514	19	4.343		

The results indicate that the impact of the pretest was significant ($P < 0.01$, $F = 11.610$) and it can be said that changes of the dependent variable is mainly the result of the pretest and the independent variable did not play any role ($P < 0.05$, $F = 0.374$). Therefore, the two methods used in the research did not affect the decrease in the angry reaction rate of the subjects.

Sub-hypothesis 3: Group counselling using EFT and SIT approaches is effective in “anger express out” rate.

Covariance method of analysis was used to test the hypothesis. Therefore, anger express out score was considered as the covariate variable (dependent). As it is displayed in table 9, the null assumption of having equal independent and covariate variable regressions cannot be rejected ($F = 4.252$, $\leq P 0.05$). It can be concluded that the covariate variable has affected the dependent one but by omitting the effect of the covariate variable on the independent, the independent variable does not have any effects on the dependent variable ($F = 0.462$, $P > 0.05$).

Table 9. Calculation summary of covariance analyses of “anger express out” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Covariate variable	185.422	1	185.422	7.813	0.011
Groups	21.951	2	10.975	0.462	0.636
Error	498.406	21	23.734		
Total	9240	25			

Sub-hypothesis 4: Group counselling using EFT and SIT approaches is effective in anger express in.

Covariance method of analysis was used to test the hypothesis. However, since the null assumption of having equal independent and covariate variable regressions can be rejected ($F=6.919, <P0.05$), the method cannot be used. Therefore, in order to respond to the question, the statistical test was replaced by blocking variance analysis and the results are displayed in table 10.

Table 10. Calculation summary of blocking variance analyses of “anger express in” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	54.632	2	27.316	1.753	0.199
pre-test score	57.934	1	57.934	3.718	0.068
Error	311.676	20	15.584		

The results show that the pre-test trace was not statistically significant ($F=3.718, P>0.05$). In other words, the pre-test score has not influenced the post-test score. The impact of the independent variable is not significant due to the omission of the moderating variable ($F=1.753, P>0.05$).

Sub-hypothesis 5: Group counselling using EFT and SIT approaches is effective in “anger control out”.

Covariance was used to study the data; however, the blocking variance analysis method was used due to the fact that covariance analysis assumptions could not be established. The results are demonstrated in table 11.

Table 11. Calculation summary of blocking variance analyses of “anger control out” scale score

Source	Sum of squares	df	Mean square	F	Sig.
Groups	171.107	2	85.554	3.912	0.038
Pre-test score	60.520	1	60.520	2.767	0.113
Error	415.524	19	21.870		

The findings show that the effect of the independent variable, by omitting the moderating variable, is statistically meaningful ($P<0.05, F=3.192$). Therefore, it can be concluded that changes in the dependent variable is mainly due to the effect of the independent variable. Hence, the two studied treatment approaches led to the increase in the rate of controlling anger express out in adolescents. In order to study the research question asking whether there is a difference between the effect of the SIT and EFT on anger control out, Tukey follow up test was used based on the information in table 1. The results showed that there is no difference between the two approaches at $CI=95\%$ and $P>0.05$. However, both approaches had a significant difference with the control group ($P<0.05, P<0.01$).

Sub-hypothesis 6: Group counselling using EFT and SIT approaches is effective in anger control in.

In order to study the hypothesis, the analytical method of blocking variance was used because the assumptions of the covariance analysis could not be established. The results are presented in table 12.

Table 12. Calculation summary of blocking variance analyses of “anger control” in scale score

Source	Sum of squares	df	Mean square	F	Sig.
groups	362.686	2	181.343	6.672	0.006
Pre-test score	90.752	1	90.752	3.339	0.083
Error	516.450	19	27.182		

The findings show that the effect of the independent variable is statistically meaningful by omitting the moderating variable ($P<0.01, F=6.672$). Therefore, it can be concluded changes in the dependent variable is mainly influenced by the dependent variable. Thus, the two approaches led to an increase in anger control out. Moreover, in order to study the research question stating whether there is a difference between the effect of the approaches on anger control in, the information presented in table 1 can be referred to; it can figured out that Tukey follow up test was used for more precise investigations because there is a difference between mean anger control in and SIT/EFT

approaches. The results show that there is no difference between SIT and EFT at CI=95% ($P>0.05$); however, a significant difference was observed between the mentioned approaches and the control group ($P<0.01$, $P<0.05$).

Sub-hypothesis 7: Group counselling using EFT and SIT approaches is effective in anger expression index.

The single-variable covariance method was used for examining the hypothesis. As it is displayed in table 13, there is no interaction effect between the pretest and the independent variable in the two groups. In other words, the null assumption of having equal independent and covariate variable regressions cannot be rejected ($F=4.252$, $\leq P0.05$) and the effect of the independent variable was statistically significant ($P<0.01$, $F=15.146$). So, it can be concluded that SIT and EFT result in a decrease in the total index of anger expression.

Table 13. Calculation summary of covariance analyses of anger expression index score

Source	Sum of squares	df	Mean square	F	Sig.
Covariate variable	401.352	1	401.352	6.510	0.019
Groups	1867.665	2	933.832	15.146	0.000
Error	1294.763	21	61.655		
Total	57958	25			

Also, according to the information in table 1 mentioning a difference in the mean rates of the treatment approaches, Tukey test was used for examining the question whether there is a difference between the effect of SIT and EFT against the effect of stress on the total index of anger expression. The results showed that there is no difference between SIT and EFT at CI=95% ($P>0.05$).

4. DISCUSSION

The findings of the present study show that EFT and SIT approaches were effective in decreasing anger in male juvenile delinquents.

The results show that the said approaches were effective in decreasing state anger ($P<0.05$, $F= 4.610$) and verbal anger expression tendency ($P= 0.05$, $F= 3.582$).

State anger is defined as an emotional response to an immediate stressful stimulus (Spielberger, 1995; cited by Cox & Harrison, 2008). SIT has resulted in a more adaptive response of an individual to angry situations by increasing general skills and adapting cognitive and behavioral interventions for controlling anger (Mc Dide, 2007).

Since anger is mainly linked with cognitive, behavioral and emotional aspects (Cox & Harrison, 2008), EFT has also emphasized awareness as well as changing and controlling emotions. According to the studies, using interventions based on cognitive, behavioral and emotional approaches influence anger control and self-restraint preservation (Markman, 1993; Lang, Bamed & Ende, 1998; Link, 2003; Stiths, 2004). The adolescents would be able to provide more appropriate emotional responses and coping reactions in stressful situations by re-evaluating the conditions and controlling their physical and psychological aspects. The findings are compatible with the studies of Schlichter and Horan (1981) on the effectiveness of SIT in decreasing anger in juvenile delinquents and the researches of Merhemati (2007) on the effectiveness of EFT in the psychological health of university students. Also, the results are in line with the findings of Novaco (cited by Oneil, 1999), Candal (2000), Thomas (2001), Heremann & Mc Whirter, 2002, Sheehy & Horan (2004), Sadeghi (2001) and Ansari (2006) on the usefulness of cognitive-behavioral interventions in decreasing anger and aggressiveness.

On the other hand, the present research showed that the therapeutic interventions (SIT and EFT) did not have any effect on the rates of angry feeling and physical anger expression tendency. Berkowits (1993; cited by Baha, 2001) believes that unpleasant conditions and upsetting situations are the major reasons for aggressive behaviors. As figure 1 show, the studied interventions have led to an increase in adaptive skills by putting the emphasis on teaching coping skills; they also decreased the rates of state anger and verbal anger expression tendency in juvenile delinquents. However, neither hostile behaviors and gender roles, indicating masculine identity of juvenile male delinquents, nor frustration and failure due to being in the jail could affect the rate of physical anger expression tendency and angry feeling. The findings were not compatible with the studies of Hains & Ellmann (1994) on the effectiveness of teaching SIT in decreasing negative emotional irritability and psychological problems of high school students. The results were also incompatible with the study of Maleki (2006) on the effect of anger control group teaching on the aggressiveness of male adolescents; this seems that one of the factors involved in the difference in the obtained results can be the dissimilarity of the subjects.

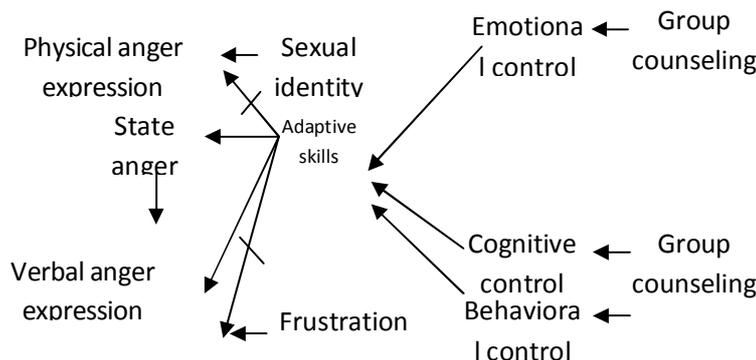


Figure 1. Effect of the independent variable on state anger

The findings show that the therapeutic approaches (EFT and SIT) did not influence the rates of anger trait ($P > 0.05$, $F = 2.694$) and its subscales (angry temperament and angry reaction).

Anger trait refers to almost stable individual characteristics (Spielberger et al, 1999; cited by Cox and Harrison, 2008) which goes back to the general willingness of a person towards irritability and becoming angry and is a constant aspect of character in the long run (Thomas, 2007); this feature is found more prevalently in juvenile delinquents (Taghilou, 2004). Due to being convicted in prison, juvenile delinquents experience negative and counter value labels by their families and the society along with the feeling of sin, anger and hostility, humility and revenge. In case there is no chance of escaping from the bothering situation, aggressive feelings are revealed in a person (Dalglish & Power, 1999). The findings are not in line with the results obtained from the studies of Vickery (1981), Haynes (1995), Reilly & Shopshire (2000), Burns, Bird, Leach & Higgins (2003). According to figure 2, group counselling using EFT and SIT along with teaching skills and controlling behavioral, cognitive and emotional factors influencing anger did not have any impact in decreasing trait anger in juvenile male delinquents. It seems that the said result is due to the insufficiency of the time allocated to the therapeutic sessions held for the delinquents and trait theories. The fact that angry temperament is considered as one of the stable characteristics of juvenile delinquents; this requires the use of integrated therapeutic approaches and even the application of long-term individual, family therapies for controlling and regulating the trait. Furthermore, the interventions did not have any effect on the rate of angry reactions in adolescents; this is associated with their frustrating conditions and situations.

According to the results of the study, SIT and EFT led to a decrease in the rate of anger express out in juvenile delinquents ($P > 0.05$, $F = 0.462$).

People who express out their anger often direct their anger towards the stimulating objects and persons and face the source of anger (Spielberger, 1999). Based on the Mendler view (1982, York, 1990), emotion requires stimulation before occurring but stimulation in the process of emotion is merely an essential secondary system; in fact, this is the cognitive system which plays the major role. However, Pakaslahti (Cited by Cox & Harrison, 2008) believe that negative emotions limit cognitive capacity and problem solving capability of a person. Therefore, therapeutic interventions using cognitive, behavioral and emotional approaches are essential. Based on SIT and EFT therapeutic interventions, the person changes and controls his angry feelings; considering the obtained results, the interventions had no effect on anger express out. The said results were not in line with the studies of Willner et al (2005), Mc Dide (2007) and Rahmati (2007). The effective factor in non-effectiveness of therapeutic interventions in the scale of anger express can be attributed to the sustainability of the feature in juvenile delinquents as well as the need for a longer treatment period for enabling the individuals in cognitive, emotional and validation of thoughts and feelings. As the findings imply, the youth who have experienced a range of damages from moderate to severe during childhood and stages of growth are at the increasing risk of being involved in violence (Maschi & Bradley, 2008). The high rates of anger and aggressiveness in juvenile delinquents (Taghilou, 2004, Eftekhari, 2004) requires continuous and multi-dimensional interventions.

The results demonstrate that SIT and EFT result in a decrease in the rate of anger express in juvenile delinquents ($P > 0.05$, $F = 1.753$).

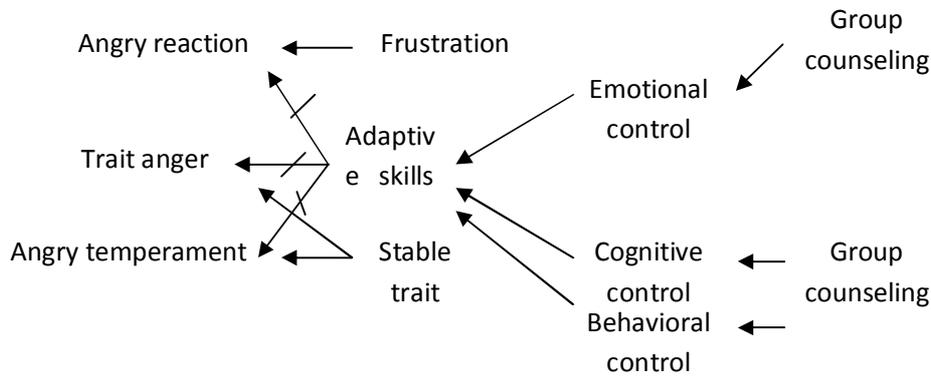


Figure 2. effect of the dependent variable on anger trait

Spielbegeer believes that individuals who express in their anger actually suppress their anger and direct it towards themselves (Kraheh, 2001). Although the application of treatment approaches (EFT and SIT) and teaching coping skills enables people to regulate their behavioral and cognitive reactions and their feelings in angry situations, it seems that the presence of unpleasant conditions like frustration, failure and feeling insecure in jail can affect the results. The said result is not compatible with the studies of Stermac (1983), Waysler (1986), cited by Sadeghi, 2001, Rosengren (1987) and Timons (1993), Thomas (2001) and Marhemati (2007). Therefore, the increase in the effectiveness of treatment approaches needs the teaching of coping skills for a longer time and decreasing frustration and failure for the adolescents. The findings reveal that the therapeutic interventions lead to an increase in anger control out ($P < 0.05$, $F = 3.912$) and anger control in ($P < 0.01$, $F = 6.672$) in the subjects.

SIT along with teaching skills like stopping thinking, relaxation, mental visualization, cognitive reconstruction and problem solving focuses on the role of thoughts, feelings and behaviors in the incidence of abnormal behavior. Through increasing adaptive skills in adolescents, this approach has managed to help the clients to direct their angry feelings in a way that objects and people are not hurt. Moreover, the juvenile delinquents learned the adaptive skills of EFT and were able to change their negative internal and interpersonal emotions and change their way of expressing anger by detecting the needs and controlling the emotions (Greenburg & Safran, 1987). The findings are compatible with the results of the studies conducted by Novaco (1977), Wlazelek (1990), Hanis & Ellman (1994), Kellner (1999), Heremann & Mcwhirter (2002), Mirbagheri (2002), Ansari (2006) and Hassani (2008).

The absence of any significant differences between the rates of effectiveness in the two methods in questions indicates that any therapeutic intervention regardless of the method does not show any significant impact on anger control.

In order to control anger and decrease its rate, phenomenology and behavioral aspects should also be considered along with cognitive (thoughts, faith and beliefs) and physiological (hormones and nervous transmitters) aspects (Eckhardt & Deffenbacher, 2004). Hence, the approaches used in this study consider some aspects of the factors affecting anger and has led to a decrease in the total index of anger expression ($P < 0.01$, $F = 15.146$). The findings are compatible with the studies of Shakibaie, Tehranisoust, Shahrivar and Asari (2004), Marhemati (2007), Hassani (2008), Findler and Frimo (1983; cited by Cory, 1996), Seda (1992), Robinson, Smitt and Miller (2002); cited by McDide (2007) and Minkin (2007).

Overall, according to figure 3, it can be said that SIT and EFT did not influence the rates of anger express in and out due to the presence of frustration, threatening conditions and the stability of the trait. However, the approaches managed to increase the rates of anger control in/out and decrease the general total of anger expression in the male juvenile delinquents by improving adaptive and coping skills in them.

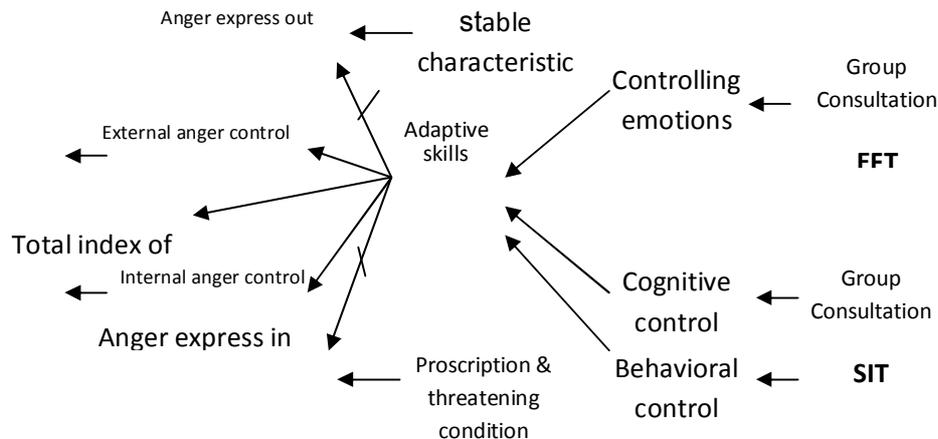


Figure 3. Effect of independent variable on the rate of anger control total index of anger expression

Finally, considering the effectiveness of the studied treatment methods, it is suggested that these therapeutic interventions are applied in treatment and correction centers, prisons, administrative and welfare organizations to promote the level of psychological health of people in the society and particularly regulate and decrease the psychological problems of adolescents.

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