

# The Effect of Positive Thinking Training on Reduction of Depression, Stress and Anxiety of Juvenile Delinquents

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## ABSTRACT

**Background:** The positive psychology always seeks to recognize and describe the pleasure and subjective well-being. The main issue of this field is to improve the well-being and recognize the positive aspects in order to reinforce them to prevent and develop the mental health. The aim of the present study is to investigate the effect of positive thinking training workshop on reduction of depression, stress and anxiety of juveniles at Correction and Rehabilitation Centers.

**Methods:** The quasi-experimental method was used in this study and the depression, anxiety and stress scale (DASS-21) was used. Forty one subjects participated in this research and were divided into two homogeneous groups based on their pretest scores and were randomly included in the experimental and control groups. The positive thinking training workshop was performed for 10 sessions within three weeks on experimental group and after that the posttest and after one month the follow up test were performed.

**Results:** The results have shown that the positive thinking training courses have effects on reduction of depression and anxiety. But it had not effects on stress in the follow up study.

**Conclusion:** Thus, this training can be used for reduction of depression and anxiety of juvenile at Correction and Rehabilitation Center.

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► *Implication for health policy/practice/research/medical education:*  
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## 1. Introduction:

Delinquency is defined as sin, guilt and

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offense and means as the behaviors against the law and cultural beliefs of a society which is committed by people under 18 years of age. Its markers are presented as robbery, aggression, running away from home and school, drug abusing, sexual promiscuity, murdering, trafficking, etc.

(1). Recent studies showed that there are a lot of harmful events (eg. Intimidating life), interpersonal events and stresses on adolescence and youths (2). The stressful events of life has important role in juveniles' life. The interpersonal stressors are the most important ones, especially when these stressful events happen in childhood such as parents' separation, social isolation, poor family relations, inefficiency of parents, relationship failures, conflict with peers and parents, the poor social support and stressful relationships due to parents' drug abusing (3).

The studies have shown that applying the isolation as a psychological strategy (eg. cognitive and behavioral avoidance, discharge of emotion, deluded thinking and the feel of guilt and self-criticism) and strategies concentrating on excitement are related to psychological symptoms (depression and stress) in adolescents (4).

Today, the positive psychology as a new field of psychology, studies on the proficiencies and happiness in human scientifically. The happiness or satisfaction as positive excitements can lead to art and science production or creative problem solving in daily life. "The psychological phenomena like happiness, optimism, hope and creativity which resulted from the positive experiences of mind, are focused by positive psychological studies" (5). The final goal of positive psychology that concentrating on talents and abilities of people rather than their disorders and abnormalities, is to recognize the approaches causing wellbeing and happiness (6).

The positive excitements change the mental and behavioral characteristics to positive attitudes (7). The positive psychological interventions included treatment methods or intentional activities to promote the positive emotions, behaviors, cognition, improve the well-being, and recovering depression symptoms (8, 9). Fava *et al* have found that the positive psychological interventions can help the depressed

people and enhances their mental well-beings and leads to reducing the depression symptoms (8). In a study conducted by Seligman, Esteen, Park and Pearson, they have imposed the treatment interventions on depressed people for a week, to increase their happiness and decrease their depression symptoms (10).

The studies have shown that hopefulness has an important role in recovering from different psychological disorders (11). Mascaro and Rosin showed that the existential sense plays an important role in increasing hope. In addition, they showed that the existential sense has effects on the prevention of depression symptoms (12).

Many studies have shown that the positive psychological interventions have effect on improving the well-being status, employing the experiences, and personal abilities, and reducing the depression level (13-15). Dukri and Estepto have found that the approaches of positive thinking is effective to reduce the depression and stress, and increasing the life satisfactory, mental health, and happiness (16). Meta-analysis conducted to investigate the evidences about the effectiveness of positive thinking. Lyubomirsky showed that the positive psychological interventions improve the mental well-being and caused the reduction of depression level and stress symptoms in clinical population (17).

The high frequency of criminal activities of juveniles, clarify the significant importance of studying and conception of juvenile delinquent behaviors. For a precise and effective action plan to reduce and control the juvenile delinquency, it is important to lead the educational factors towards the actual needs and challenges and adjust the educational and preventive plans with the specific needs of this group. So, as some researchers reported training the positive thinking is effective for reducing the depression level, stress, anxiety and increasing the life satisfaction, mental health, hope, and happiness. But, there is not enough researches about the role of training positive thinking on

reduction of depression, stress and anxiety on delinquent juveniles. Therefore, this research aimed to answer these questions: Is training positive thinking effective on reduction of depression, stress and anxiety of juvenile delinquency at Correction and Rehabilitation Center?

## 2. Materials and Methods:

### Statistic population, sampling method

The quasi- experimental method was used in this study including the control and experimental groups using pre and posttests. The subjects of this study included the adolescents at Correction and Rehabilitation Center in Zahedan with age ranged from 12-18. Forty one persons participated in the positive thinking training courses that were selected by using census. The subjects were matched into two groups based on the scores from depression, stress and anxiety test (DASS-21). They were randomly selected as both experimental (21) and control (20) groups. During the training workshops, the participants were reduced to 17 in experimental group and 12 in control group and in the follow up they decreased to 11 in each group. Both control and experimental groups were tested before and after the training workshop. The experimental group participated in positive thinking workshop in 10 sessions that each one was 90-minute. At the end of the tenth session, the post test and after one month the follow up test were carried out for both groups. To analyze data, Analysis of Covariance was used.

### Experimental intervention

The content and aim of workshop were derived and developed from the view point of Seligman, Esteen, Park and Peterson on positive thinking (10). The workshop was performed by the researcher. The aim of the workshop was to reduce the depression, stress and anxiety levels and it was tried to perform ask and answer and group discussion sessions, at the end of each session, a task was assigned and at the beginning of every session, the assignments of previous session were

reviewed. The content of each session is as follows:

**The first session:** Introduction of members and explanations about the aims of these workshops; talking about the strength of members and writing about their strength.

**Second session:** Talking about the way of using the strength in daily life and noting three positive events of life.

**Third session:** Discussion about acknowledgment and writing acknowledgement letter to friends.

**Fourth session:** Talking about the how to enjoy the present life with concentration on the present time.

**Fifth session:** Talking about the constructive and active responses and how to make interactions with other people.

**Sixth session:** Preparing a summary of enduring characteristics during life time; describing the values and personalities which the person likes to be attributed by friends and family.

**Seventh session:** Talking about the positive abilities and the way that a person can express his abilities.

**Eighth session:** Talking about the positive thinking and selecting a workout from those which was proposed the previous sessions and discussing about that field.

### Instruments

**The Depression Anxiety Stress Scales (DASS-21):** This scale was prepared by Lavibond in 1995. This scale has two forms. The short scale contains 21 expressions that each of them evaluates the psychological structures such as "depression", "stress" and "anxiety" through seven different expressions. Lavibond in a study on 717 university students showed high correlation between DASS scale and BECK depression inventory (18). Besides, Antony *et al* (1998) obtained a similar pattern of correlation in clinical samples. Crawford and Henry (2003) assessed the reliability of this instrument for depression, anxiety, stress, and all scales by using the Conrbach alpha and the results were as follow: depression 0.95, anxiety 0.90 and stress

**Table 1:** To compare depression in control and experimental groups by Analysis of covariance.

Variable	Cov. Variable	Sources	Sum of Squares	Df	Mean of Squares	F	Sig	Eta
posttest	Pretest	Group	155.08	1	155.08	23.41	0.000**	.24
		Error	172.2	26				
Follow up test	Pretest	Group	32.15	1	32.15	4.66	0.05*	.32
		Error	6.89	19				

0.93 and for total of scales were 0.97. In Iran, Moradipناه, Sahebi and Aghebati reported the depression to be 0.94, anxiety 0.92 and stress 0.82 by using Cronbach's alpha (19).

### 3. Results:

In analysis of data for answering to the research question as “is training positive thinking effective on reduction of depression, stress and anxiety of juvenile delinquency at Correction and Rehabilitation Center?” for omitting the effect of pretest, Analysis of Covariance was used.

As shown in Table 1, after omitting the effect of pretest as a covariate variable, there was a significant difference between experimental and control groups in the posttest of depression ( $F(26, 1) = 23.41$ ,  $P \leq 0.01$ ). Also after omitting the effect of pretest, there was a significant difference between experimental and control groups in the Follow up test of depression ( $F(26, 1) = 4.66$ ,  $P \leq 0.05$ ) in one month after the training. The Eta shows that posttest predicted. 24 and follows up test 0.32 of depression variances.

According to the descriptive data of this comparison, in the pretest the mean amount in control group ( $M=7.15$ ) was less than the experimental group ( $M=10.14$ ), but in the posttest the mean amount in control group ( $M=7.50$ ) was more than the depression of experimental group ( $M=3.17$ ), also in the follow up test the mean amount in control group

( $M=7.09$ ) was more than the experimental group ( $M=5.27$ ). So the positive thinking training workshop was effective in reduction of depression level in experimental group.

For compression of anxiety also the analysis of covariance was used and its results are in the below tables.

As shown in Table 3, after omitting the effect of pretest as a covariate variable, there was a significant difference between experimental and control groups in the posttest of anxiety ( $F(26, 1) = 8.46$ ,  $P \leq 0.01$ ). Also after omitting the effect of pretest, there was a significant difference between experimental and control groups in the Follow up test of anxiety ( $F(26, 1) = 5.09$ ,  $P \leq 0.05$ ) in one month after the training. The Eta shows that posttest predicted. 24 and follow up test 0.21 of anxiety variances.

According to the descriptive data of this comparison, in the pretest the mean amount in control group ( $M=5.45$ ) was less than the experimental group ( $M=7.42$ ), but in the posttest the mean amount in control group ( $M=5.08$ ) was more than the anxiety of experimental group ( $M= 2.82$ ), also in the follow up test the mean amount in control group ( $M=4.63$ ) was more than the experimental group ( $M=4.27$ ). So the positive thinking training workshop was effective in reduction of anxiety level in experimental group.

**Table 2:** The means and standard deviation of depression in the groups.

Test stage	Groups	Mean	SD	N
Pretest	Control	7.15	2.60	20
	Experimental	10.14	4.91	21
Post test	Control	7.50	3.08	12
	Experimental	3.17	2.50	17
Follow up test	Control	7.09	3.33	11
	Experimental	5.27	2.86	11

**Table 3:** To compare anxiety in control and experimental groups by Analysis of covariance.

Variable	Cov. Variable	Sources	Sum of Squares	df	Mean of Squares	F	Sig	eta
<b>posttest</b>	Pretest	Group	48.32	1	48.32	8.46	0.000**	.24
		Error	148.51	26				
<b>Follow up test</b>	Pretest	Group	23.43	1	23.43	5.09	0.05*	.21
		Error	87.45	19				

**Table 4:** The mean and standard deviation in groups based on the anxiety level.

Test stage	Groups	Mean	SD	N
Pretest	Control	5.45	2.83	20
	Experimental	7.42	4.26	21
Post test	Control	5.08	2.99	12
	Experimental	2.82	2.25	17
Follow up test	Control	4.63	2.80	11
	Experimental	4.27	3.06	11

For compression of stress also the analysis of covariance was used and its results are in the tables 6.

As shown in Table 5, after omitting the effect of pretest as a covariate variable, there was a significant difference between experimental and control groups in the

**Table 5:** To compare stress in control and experimental groups by Analysis of covariance.

Variable	Cov. Variable	Sources	Sum of Squares	df	Mean of Squares	F	Sig	eta
posttest		Pretest Group	168.70	1	168.70	21.49	0.000	0.45
		Error	204.04	26				
Follow up test		Pretest Group	0.10	1	0.10	0.01	0.9	0.001
		Error	187.86	19				

**Table 6:** The Mean and standard deviation in groups based on the stress level.

Test stage	Groups	Mean	SD	N
Pretest	Control	7.15	4.53	20
	Experimental	7.71	4.34	21
Post test	Control	8.91	3.65	12
	Experimental	3.88	2.42	17
Follow up test	Control	7.63	2.97	11
	Experimental	7.60	2.98	11

posttest of stress ( $F(26, 1) = 21.49$ ,  $P \leq 0.01$ ). Also after omitting the effect of pretest, there was not a significant difference between experimental and control groups in the Follow up test of stress ( $F(26, 1) = 0.01$ ,  $P \geq 0.05$ ) in one month after the training. The Eta shows that posttest predicted 0.45 and follow up test .001 of stress variances.

According to the descriptive data of this comparison, in the pretest the mean amount in control group ( $M=7.15$ ) was less than the experimental group ( $M=7.71$ ), but in the posttest the mean amount in control group ( $M=8.91$ ) was more than the stress of experimental group ( $M=3.88$ ), but there was not significant deferent between the mean of control group ( $M=7.63$ ) and experimental group ( $M= 7.60$  in the follow up).

#### 4. Discussion:

Positive thinking training includes happiness, good temper, positive excitements, hope and satisfaction which cause wellbeing and happiness. The present study aims to investigate the effect of positive thinking training on reduction of depression in juveniles at correction and rehabilitation center. The findings of the present study showed that the positive thinking training courses have effects on the reduction of depression levels of juveniles at correction and rehabilitation center. The results of the present study approved the studies which have found the cognition-behavioral interventions effective on changing the style and reduction of depression. Seligman, Esteen, Park and Peterson found that training the changes in attribution style cause the people to leave aside the depression

symptoms. Thus, changing the negative viewpoint to positive one can lead to optimism and increase the hope (10).

Also Roberts, Kan, Matiz and Thompson investigated the effect of optimistic plans and the life skills on depression symptoms in juveniles, the results from posttest and six month study showed that the intervention group was more optimist than the control group (20). In addition Roberts, Kan, Thompson, Bishop and Hart investigated the long term effect of Pen preventive plan on depression and stress in teenagers with age ranged from 11-13 years and high level of depression in rural schools of Australia. The results showed that the teenagers of intervention group were more optimist than the control group (21). Thus, the results of this study were similar to the results from the study of Seligman *et al*; Roberts *et al* and Frawman, Buler *et al* which were about the effect of positive thinking training on reduction of depression, anxiety and stress levels (7, 10, 17, 20, and 21).

### 5. Discussion:

With regards to the findings of this study, we can be hopeful that by training the positive thinking; the depression and anxiety of delinquent juveniles can be reduce. But the training was not effective on stress of the delinquent juveniles in long time. It can affect their viewpoints, ways of dealing and mental health and also may prevent them to return to the anti-social behaviors. Since these delinquent juveniles at Correction and Rehabilitation Center were not initially familiar with this environment and it is a totally different environment from the outside world for them; moreover, due to their pessimistic thoughts and hopelessness towards their future, the incidence of psychological disorders like depression and anxiety threatening their health is high. Under these circumstances, the positive thinking training can be helpful to develop and reinforce their positive relationship and improve their self-esteem, also training the optimistic and positive thinking encourage

the person to recognize his positive experiences and their role to increase and improve the their self-respect and also respect to others and theirs self-esteem. According to these results, for reduction of stress in delinquent juveniles a new training is needed.

Therefore it is recommended that the tutors of these centers have to pass the positive thinking courses and be effective to reduce the depression and anxiety of delinquents in these centers. Also it is necessary that these trainings be accompanied with stress coping styles. The limitations of this study were the loss of subjects and restricting the samples to the boys at Correction and Rehabilitation Center of Zahedan.

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