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## Effectiveness of group acceptance and commitment therapy (ACT) on school anxiety and resilience among high school students

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### Abstract

This study is to review the effectiveness of group acceptance and commitment therapy (ACT) on school anxiety and resilience among high school students. Current study uses empirical method with pre-test post-test framework and a control group. Participants include all boy high school students from Najaf Abad town; sample size includes 60 students (two 30-student groups) that are selected by an accidental multistage sampling method. We used Philips School Anxiety Survey and Conner and Davidson Resilience Scale. At first pretest was taken from two groups and then intervention group received group acceptance and commitment therapy (ACT) during 8 sessions and control group received no method of therapy. Analyzing data by SPSS-19 and multivariate analysis of covariance (MANCOVA) showed that there is a significant difference between pretest and posttest scores of intervention group and control group ( $P < 0/001$ ). Group acceptance and commitment therapy (ACT) may be a helpful method of therapy to improve school anxiety and student's resilience and therapists and consultants can use this method of therapy to decrease school anxiety and improve students' resilience.

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## Introduction

School environment is full of stressful stimuli that lead to various negative emotions like anxiety, depression and so on among students and exerts negative effects on their educational performance (Kaplan, Liu and Kaplan, 2005), and emotional well-being (Reijntjes, Kamphuis, Prinzie and Telch, 2010). Considers school anxiety as having two kinds of social and exam anxiety. Successful compatibility within school demands cognitive ability and also social adequacy. Second part of school anxiety is test anxiety which is a simpler form of anxiety and is particularly described as the individual's response to before, during and after test condition wherein she/he is so afraid due to possibility of failure and this lead to arouse anxiety symbols in him/her. School anxiety means fear of various events related to school, like speaking in front of others, being scorned, disrespected and blamed in front of others, being smacked by peers, taking exams, group activities, doing exercises and so on (Gutierrez-Maldonado, Magallon-Neri, Ruz-Callafell, Penaloza-Salazar, 2009). Philips (1978) considers school anxiety as having two kinds of social and exam anxiety. Successful compatibility within school demands cognitive ability and also social adequacy (Bernard, 2006). (Magelinskite, Keplaitė, 2014). Second part of school anxiety is test anxiety which is a simpler form of anxiety and is particularly described as the individual's response to before, during and after test condition wherein she/he is so afraid due to possibility of failure and this lead to arouse anxiety symbols in him/her (Dewi and Mangunsong, 2012). Students demand "resilience" to face and concord with challenges and obstacles in school environment, full of stressful stimuli. The concept of resilience has emerged from observing children who had the ability of obtaining positive experiences despite having different burdensome experiences (Yates and Masten, 2004). Resilience is defined as the psychological constant in facing with stress (Combes-Malcome, 2007). Resilient persons have different characteristics like self-efficiency, creativity, problem-solving skills, self-examination, and ability to live in present time

(Thompson, Arnkoff, and Glass, 2011). Acceptance and Commitment therapy (ACT) was made by Steven Hayes in 1986. This method is a part of third generation of behavior therapies and was made after second generation of these therapies like cognitive-behavioral therapy. ACT is related to a research program under title "theory of communication system in communication". This approach clearly accepts the change of thoughts' and feelings' functions rather than their form, content or abundance (Hayes Luoma. Masuda Lillis, 2006). Group ACT has two parts: mindfulness, and acting and experiencing in the present moment; and participants would be taught to live in the present moment accepting their feeling and emotions and preventing empirical avoidance (Smoot, 2008). Two main components in this therapy include acceptance and life based on values (Wilson, Sandoz and Kitchens, 2010). Main purpose in this approach is making psychological flexibility, Psychological flexibility is a fundamental factor in Psychological Health that decreases psychological vulnerability and improves well-being (Kashdan and Rotenberg, 2010). This therapy has 6 rules: defusion, acceptance, contact with present moment, self-observe, values and committed action (Harris, 2006). Zettle (2003) reviewed effects of two methods of desensitizing and ACT on mathematics anxiety of students and his results showed that both methods have significant effects but with different therapy moderators. Moran (2010) reviewed the effectiveness of ACT on managers' resilience and his results showed improvement in managers' performance and decrease in their job stress and errors. Beilby, Byrnes and Lyaruss (2012) applied ACT in a sample of 20 adults who stuttered and could improve adults' verbal fluidity and psychological-social adaptation. The purpose of the current study is to review the effectiveness of Group ACT on school anxiety and resilience among high school students.

## Materials and methods

### *Procedure and statistical population*

Current study is empirical and uses a pre-test post-test design with control group. Statistical population

include all boy high school students from Najaf Abad town in educational year of 2014-2015.

#### *Sampling method*

sample size include 60 students (two 30-student groups) that selected by an accidental multistage sampling method among all high schools. Inclusion criteria sample size include being a Najaf-Abad student, no death among family members in recent 6 months, and not having psychological disorders like depression; exclusion criteria include: death of a family member in recent 6 months, having concurrent psychological disorders and incomplete questionnaires. At first pre-test was taken from both groups (Experimental and Control Group) and then Group ACT was held in 8 sessions for experimental group and after that posttest was taken from both groups. Held session based on ACT are explained below:

#### *Sessions and Tools*

Session 1: Introducing and communicating with other group members, psychological training, rest and eating services, filling questionnaire. Session 2: discussing experiences and assessing them, making creative hopelessness, rest and eating services, effectiveness as assessment criteria. Session 3: reviewing last session experiences, expressing control as a problem, assessing performance, rest and eating services, reviewing exercises of next session. Session 4: reviewing last session experiences, homework and behavioral commitment, introducing defusion, applying techniques of cognitive defusion, rest and eating services, intervening with problem making chains of language, weakening self-wasting with useless thoughts and emotions. Session 5: reviewing homework and behavioral commitment of observer, showing separation between yourself, internal experiences and behavior, self-observing as a field, weakening self-concept and expressing yourself. Session 6: assessing performance, applying techniques of mindfulness, contrast between experience and mind, rest and eating services, sampling exclusion from mind, training internal

experiences as a proves. Session 7: assessing performance, introducing the concept of value, showing dangers of focusing just on outcome, discovering functional values of life; Session 8: understanding the nature of interest and commitment, determining the patterns of action based on values. Data were collected by below surveys in the current study: Philips School Anxiety Survey (SAS): School Anxiety Survey (SAS) was designed by Philips in 1978 for quantification of School Anxiety among students. This survey has 74 questions that is translated into Persian Language by Meri and Akbari (2008) and was localized with Persian culture and therefore it is decreased to 65 questions and it is assessed with Yes-No questions. This survey has four micro-standards: expressing you, self-confidence, test anxiety and physiological responses. In Meri and Akbari study (2008) the validity (internal conformity) of this survey is reported by Cronbach's alpha coefficient as 0.86. Connor-Davidson Resilience Scale (CD-RISC) (2003): We used The Connor-Davidson Resilience Scale (CD-RISC) to assess resilience. This survey as 25 factors and is scored in Likert Scale between zero (Never) to 4 (Always). Although this scale assesses different levels of resilience, it has one general score. Test makers assessed the validity (with factor analysis and convergent and divergent validity) and reliability (with retest and Cronbach's Alpha) of the scale in different groups (Normal and Danger). Results of elementary studies related with psychoanalysis features of this scale have proved its validity and reliability (Connor and Davidson, 2003). Jokar (2008) reported conformity coefficient of 0.93 with Cronbach's alpha method on 157 high school students.

## **Result and discussion**

### *Demographic Properties*

From demographic view it shall be said that the average age of all students is 16.31 in intervention group and 16.18 in Control Group and all students were chosen from boy schools. Education level of parents of intervention group students: 29% below BA, 54% has a BA and 17% have higher degrees;

Education level of parents of control group students: 32% below BA, 52% has a BA and 16% have higher degrees.

*Data Analysis*

Data was analyzed based on intervention goals by SPSS-19 and multivariate analysis of covariance (MANCOVA). Descriptive indicator, mean and standard deviation of pretest and posttest scores of school anxiety and resilience are offered in Table (1).

**Table 1.** Descriptive indicators of school anxiety and resilience scores based on Group Membership and Assessment Stages.

Variable		Pre test		Post test	
		M	SD	M	SD
School anxiety	Experiment	30.30	9.31	19.30	9.36
	Control	29.93	11.54	29.10	10.56
Resilience	Experiment	60.00	15.34	72.67	15.45
	Control	59.70	13.04	60.33	12.37

As we see in Table (1), it seems that there is a significant difference between pretest and posttest

means of intervention group. We used MANCOVA method in the current study; therefore assumptions of normalcy of scores distribution and equality of variances and covariances were assessed. Shapir Wilks' results for school anxiety is 0.537 in Intervention group and 0.441 in control group and results for resilience is 0.231 in Intervention group and 0.907 in control group.

Levin's test result is 0.030 for school anxiety and 0.009 for resilience and 0.474 for Box Test. MANCOVA can be used according to the accidental selecting of the same number of members in both groups, measurement scale, proof of presupposition of normalcy in score distribution and equality of covariances.

General supposition of the current study is that Group ACT decreases school anxiety and increases resilience among high school students. Results of Wilks' Lambda Test for reviewing dependent variables in posttest stage is presented in Table 2.

**Table 2.** Results of Wilks' Lambda Test for school anxiety and resilience scores in posttest stage with controlling scores of pretest stage.

	V	F	DF1	DF2	sig	E	P
Pre-test of school	0.158	1.464	2	55	0.001	0.842	1
Pre-test of Resilience	0.152	1.533	2	55	0.001	0.848	1
Group	0.274	74.366	2	55	0.001	0.730	1

As we see in Table (2), it seems that there is a significant difference between posttest scores of intervention group and control group ( $P < 0/001$ ). Therefore, the general supposition of current study is

proved. Table 3 presents results of MANCOVA for reviewing the effectiveness of group ACT in school anxiety and resilience of students in posttest stage.

**Table 3.** Results of MANCOVA of school anxiety and resilience posttest scores along with controlling pretest.

		SS	DF	MS	F	sig	E	P
School	Pre test	4491.613	1	4491.613	294.120	0.001	0.840	1
	Group	1530.439	1	1530.439	100.216	0.001	0.662	1
Resilience	Pre test	8955.259	1	8955.259	309.172	0.001	0.847	1
	Group	2189.252	1	2189.252	75.585	0.001	0.574	1

As we see in Table (3), it seems that there is a significant difference between posttest scores of

intervention group and control group ( $P < 0/001$ ) after controlling pretest scores. Effectiveness rate of Group

ACT is 0.642 for school anxiety and 0.574 for resilience. Therefore, Group ACT decreases school anxiety and increases resilience among high school students. Findings of MANCOVA and descriptive indicators showed that there is a significant difference between pretest and posttest scores of intervention group and control group and Group ACT decreased school anxiety and increased resilience among high school students. Obtained findings by the current study is congruent with these studies: Zettel (2003), Ossman, Wilson, Strosahi and Maknil (2006), Swain, Hainkok, Haincworth and Bowman (2013), Moran (2010), Beilby, Byrnes and Lyaruss (2012), Whiting, Simpson, Macleod, Deane and Ciarrochi (2013) and Rafiee, Sedrpoushan and Abedi (2014). Zettle (2003) compared the effectiveness of two methods of desensitizing and ACT on mathematics anxiety of students; this research findings show that both methods were effective in decreasing mathematics anxiety of students, but therapy moderators of both methods were different. ACT decreased avoidance and improved psychological acceptance and desensitizing method decrease mathematics anxiety of students by calming the. Ossman, Wilson, Strosahi and Maknil (2006) reviewed the effect of ACT among those stricken with social disorder and their results showed that social anxiety is decreased. Swain, Haincock, Hainworth and Bowman (2013), in an ordered review of 323 previous studies related to treating anxiety disorders, came to this conclusion that ACT is so effective in treating anxiety disorders. Moran (2010) reviewed the effectiveness of ACT on managers' resilience and his results showed improvement in managers' performance and decrease in their job stress and errors. Beilby, Byrnes and Lyaruss (2012) applied ACT in a sample of 20 adults who stricken with stutter and could improve adults' verbal fluidity and psychological-social adaption. Witing, Simpson, Maklied, Dian and Siaruchi (2013) applied ACT to improve psychological adaptation among patients stricken with brain damage which showed to improve their psychological adaptation. Rafei, Sadr-pour and Abedi (2014) applied ACT in a study to decrease signs of anxiety and increase

satisfaction with Picture of Body in 40 fat women and their results show improvement in anxiety signs and increase in satisfaction with Picture of Body. "Avoidance and Poor performance" are two brilliant features in anxiety disorders that are compatible with two main factor in ACT approach. Psychological acceptance and committed action are two main factors in Group ACT. Avoiding experiences is related with extensive domains of behavioral and psychological problems. Avoiding experiences makes human so vulnerable in facing tension-making factors indeed. Those more interested in suppressing and limiting these experiences would be more confused and disordered when they try to control and face with stress and anxiety in school, work place and so on. ACT approach helps people to accept their own controlled thoughts and emotions and make themselves free from verbal rules which increased their problems and leave tension and conflict with them rather than applying and removing harmful factors. ACT approach, in other words, encourages people to accept their experiences as they really are, face their mental experiences without judgment and with mindfulness. ACT approach also encourages people to clearly define their own values and then define these values as their behavioral purposes and then act committedly to achieve their own goals. Three features of resilient people include: commitment, control and being challenging. Improving committed action would improve and increase theses three components. Individuals shall seek for solutions to positively face with daily and routine challenges and obstacles rather than escaping and in so doing they believe in their own competences and seek to improve and effectively act rather than blaming destiny and finding external factors as blameworthy. The main purpose of ACT approach is improving Psychological Adaptation as it can decrease Psychological damages and improve Psychological well-being and health. Improving flexibility can increase positive emotions and create a positive attitude toward life events.

### Conclusion

Capacities of individuals for using compatible and effective strategies in facing with life challenges and obstacles would improve by emergence of positive emotions and attitudes. Mindfulness exercises applied in ACT have positive relation with compatibility, optimism, awareness, liveliness, adequacy, self-esteem and independence. Therefore Group ACT could improve school anxiety and resilience among students as it decreased individual's avoidance from his/her own experiences and encouraged them to face with their experiences without any judgment and with mindfulness method and define social and educational goals for themselves and believe in their competences and capacities in process of achieving goals and facing with challenges and use compatible and adaptable strategies, have commitment in doing and achieving their goals. Some Limitations of the Current Study: Group ACT Therapy sessions was held in spring and faced with time limit due to its concurrence with exam season. Therefore it was not possible to follow the review of duration of therapy effects. Sampling was done in boy schools and therefore results cannot be generalized for girl students. It is suggested to apply Group ACT for all age groups, and to decrease test and social anxiety among university students and even improving anxiety and resilience among clerks, soldiers and different population groups. It is also suggested that therapists and consultants use Group ACT to decrease school anxiety and increase resilience in student for all age groups.

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