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Effectiveness of Group Acceptance and Commitment Therapy on the Shyness of High School Female Students

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One of the most important mental health issues in students is shyness. Considering adverse consequences of shyness in students' lives, this study aimed to determine the efficacy of acceptance and commitment group therapy on the shyness of Zanjan High School female students. The research method was semi-experimental and based on the pretest-posttest control group design, with follow-up after one month. The sample included 38 participants who were selected by a multi-stage sampling method and placed randomly in the experimental and control groups. At first, at the same time and in the same conditions, all the students responded to the Stanford Shyness Questionnaire (SSQ; Zimbardo, Personal Communication, 1981). Then, the acceptance and commitment group therapy was performed for the experimental group in eight sessions; the control group received no intervention. At the end, both groups were evaluated by the posttest, and then they were tracked after an interval of one month. In order to analyze data, the covariance analysis was applied. Findings showed that the acceptance and commitment therapy was meaningfully effective in decreasing shyness in the experimental group ($p<.01$) and after one month, no significant changes were found in the results. These findings show that group acceptance and commitment therapy is an effective treatment for shyness in high school female students.

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Mankind needs to communicate with others. Many human needs and talents flourish only through interpersonal interactions and social connections. In every society, a significant percentage of children, adolescents, and adults unwillingly and unwittingly trap themselves with their shyness so that their valuable real character and capabilities remain unknown behind mass clouds of shyness (Afrouz, 2007). Shyness is known as a negative reaction to being with strangers, feeling depressed and anxious, and behavioral inhibition in social interactions (Cheek & Buss, 1981). They deny their responsibility in creating relationships with others and their anxiety becomes apparent when they are at the risk of social interactions (Gilmartin, 1987). Shyness has important symptoms such as subdued facial expressions, avoiding eye contact, looking down, speaking in a low voice, self-restraint, being proactive in avoiding frightening situations, increased heart rate, dry mouth, tremor, sweating, general weakness, dizziness, upset stomach, fear of loss of control, the negative evaluation of self and others, low self-esteem, loneliness, sadness, anxiety, and depression (D'souza, 2006). Shyness can cause mental health problems in various fields such as communication, adaptability, reduced self-esteem and low self-concept, feeling undervalued, poor social skills, educational problems, neurological conditions, and psychiatric problems (Carducci, 2003). If shyness is left untreated, it can cause social anxiety, lack of social skills, and lack of compatibility with people (Keith, 2007). A natural way that people turn to in difficult situations such as shyness is trying to avoid the situation. This strategy is appropriate for interactions that make up our environment. However, trying to avoid, suppress, or eliminate mental events, such as thoughts and

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emotions may actually strengthen the discomfort or irritation that the person is experiencing (Leahy, Tirch & Napolitano, 2011). Socially shy people are on a continuum. The first group is shy people and introverts who prefer to be alone and are without social skills. The second group is extroverted and seems to be cool, but inwardly is very anxious. They tend to communicate with others, but they are also without social skills and in social situations, they also experience cognitive impairment (Chavira, Stein & Malcarne, 2002). Shyness limits children's interactions with their peers and classmates, prevents social skills and participation in classroom discussions (Hughes & Coplan, 2010). One alternative therapy that tries to turn avoidance to willingness is acceptance and commitment therapy, which is also called ACT in brief. This treatment is a theory-based intervention within the context of the relational Frame Theory (RFT) that believes human suffering is caused by psychological inflexibility, which is a fusion of cognitive and experiential avoidance (Izadi & Abedi, 2014). ACT is essentially a behavioral therapy, it is a practical issue that is value-based; it helps the clients to understand what really is important to them and then they will allow these values to guide the behavioral changes in their lives (Hayes, Strosahl & Wilson, 1999). Acceptance and commitment therapy suggests that trying to change and control internal experiences such as thoughts and negative emotions is not effective and even exacerbates them. Using strategies such as inappropriate avoidance and deficient experience can cause negative thoughts in the person. While in a treatment based on the acceptance and commitment therapy, instead of trying to change cognitive processes, it tries to make rise person's contact psychological thoughts and feelings, because the strategy of suppressing increases distress and maladaptive behavior (Blackledge &

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Hayes, 2001). Acceptance is an active process in the ACT. The intention of acceptance is not being passive. In fact, active accepting is the awareness of inner experience (thoughts, feelings, memories, and physical symptoms), and the acceptance of these experiences (Izadi & Abedi, 2014). In practice, clients will be encouraged to model a commitment to more effective operations and to create goals (Hayes, Luoma, Bond, Masuda & Lillis, 2006). These goals should be specific, measurable, practical, and commensurate with the ability of the individuals and related to their functional needs. Moreover, the client is obligated to perform them in the presence of the therapist.

Jason and Melissa (2015), in their study suggested that the acceptance and commitment therapy is a suitable solution for the treatment of shyness and self-critique in a variety of issues, and has reduced clients' avoidance. In another study, Livheim, Hayes, Ghaderi, Magnusdottir, and Tengstrom (2014) showed that acceptance and commitment therapy decreased stress and depression in adolescents in the experimental group. There has been no study found in Iran that evaluated the efficacy of the acceptance and commitment therapy on reducing shyness, but studies have been conducted on other topics. Mohammadi (2015), in his study, showed that acceptance and commitment group therapy significantly decreased aggression in the experimental group compared to the control group. Rahimi (2014), in his study, also showed that the acceptance and commitment therapy is applicable for students with social phobia and can be applicable alongside other psychological treatments. Barzegar Vajhiabadi (2005), in his study, showed that acceptance and commitment therapy influences the emotions and mood regulation of adolescents. Given the previous research about the impact of this approach on shyness, anxiety, and depression, the present study

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aimed to evaluate the effect of a treatment based on the acceptance and commitment therapy on shyness.

Method

The research method was experimental with pretest-posttest with a control group, and following up with both groups after a month. The study population included all high school female students in the academic year 2016 in Zanjan city. By using multi-stage sampling, the target schools became clear, then due to a possible lack of people, 40 individuals who received the highest score in the evaluation of shyness were selected and randomly assigned to the experimental and the control group (each group n=20). Therefore, the sampling method for this study is the convenience sampling method. One person from each group eventually left and 38 students remained. The following questionnaire was used to collect information. After collecting data, covariance analysis (ANCOVA) was used.

Instruments

Stanford Shyness Questionnaire (SSS; Zimbardo, Personal Communication, 1981): The questionnaire contains 40 questions and was designed at Stanford University. The original form has 44 questions, which was normalized in Iran by Ebadati (1997) so that four questions were removed and 40 questions remained. In his research on high school students, the test reliability was reported as .84 for girls and .85 for boys. Rastgoo (2007) and Sajjadi (2006) showed the test reliability as .84 for girls, .85 for boys, and .87 for the whole group. In this study, in order to obtain reliability, Cronbach's alpha coefficient was used, which was .72 for the questionnaire and showed that this test is valid. The questionnaire has 40 questions that are scored from 1 to 4 by the

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Likert method. The minimum score is 40, the maximum score is 160, and higher scores is a sign of higher levels of shyness.

The experimental group received eight sessions of 75 minutes of acceptance and commitment group therapy. In the sessions, multi-protocol based on the acceptance and commitment therapy (Hayes, Strosahl & Wilson, 2010) were used.

Table 1
Shows the Content of the ACT Sessions

First session	1-Introduction of the members and the rules in the therapy sessions 2-Explaining the model and the foundation of the treatment
Second session	1-Understanding the nature and the creative cognition of shyness 2-The creation of creative desperation of the students called their inner experiences such as controlling negative thoughts and negative emotions.
Third session	1-The study of getting used to avoiding shyness 2-Replace desire (reception) experiences instead of avoiding 3-Preparing individuals to learn mindfulness
Fourth session:	1-Changing students' liaisons with their inner experience 2-Enforcing the practice of mindfulness and cognitive fault
Fifth session:	1-Developing their cognitive skills and practicing of mindfulness and awareness of their feelings 2-Discussing the difference between clean and dirty suffering
Sixth session:	1-Introduction to setting effective goals related to their values

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	2-Identifying the values of students 3-Raised and identified the difference between students' values and goals.
Seventh session:	1-Continue to practice mindfulness and cognitive fault 2-Introducing the concept of oneself as background 3-Practice mindfulness while walking 4-Identify behavior goals to achieve values.
Eighth session	1-Educate the students to be their own therapist 2-Training the difference between slip and return 3-Normalization of some level of negative emotions 4-Emphasis on being gradual in their progress and behavioral objectives

Results

The research findings are described in this section and then the results will be presented**.**

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Table 2
Mean and Standard Deviation in Pretest-Posttest Shyness

Shyness Scale	Control Group		Experimental Group	
	M	SD	M	SD
Pretest	98.26	11.11	98.26	11.37
Posttest	98.57	12.13	52.59	9.14
Follow-up	98.57	12.13	52.59	9.14

Results in Table 2 shows that the average dropped gently in the experimental group's posttest but has not changed in the follow-up.

Table 3
Covariance Analysis of Shyness in the Control and Experimental Groups

Source	SS	df	MS	F	P	Eta	Statistical power
Shyness pretest	2521.461	1	2521.46	47.97	.0001	.571	1.00
Group Memberships	1465.385	1	1465.385	287.76	.0001	.886	1.00

As Table 3 shows, in the results there is a significant difference of $p<.01$ between the experimental and control groups in the shyness posttest scores. So it can be concluded that acceptance and commitment group therapy is effective in reducing students' shyness.

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Table 4

Covariance Analysis of Shyness in the Groups' Follow-up

Source	SS	df	MS	F	P	Eta	Statistical power
Shyness pretest	1827.70	1	1827.70	7.21	.06	.16	.74
Group Memberships	156.16	1	156.16	.61	.43	.01	.11

As Table 4 shows, the difference between the posttest and follow-up on the experimental and control groups was not significant (p>.05). So, the hypothesis is that the acceptance and commitment therapy in reducing the shyness of female students is effective after a month, is approved.

Discussion

This study aimed to evaluate the efficacy of treatment based on acceptance and commitment on the population of high school students of Zanjan city. The results showed that the acceptance and commitment therapy can be effective in reducing shyness. This means that for the students who participated in the healing process, their shyness significantly reduced. This result is consistent with the results of studies by Jason and Melissa (2015), Livheim et al. (2014), Barzegar Vajhiabadi (2005), Rahimi (2014), and Mohamadi (2015), based on the effectiveness of the acceptance and commitment therapy. In explaining this hypothesis, it can be said that the acceptance and commitment therapy uses a lot of metaphors and strategies to reduce the internal control of negative experiences (Hayes & Strosahl, 2010). In this study, the manner described in creative metaphors such as a human in a well and a human in a swamp, led the students to become more receptive to negative thoughts and

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emotions and they learned the uselessness of strategies to avoid the experience of suppressed excitement. Mindfulness is one of the main components in acceptance and commitment therapy (Hayes, 2004). Participants in the experimental group learned to apply mindfulness to their inner experiences without judging the experience. On the other hand, the physiological symptoms manifest as physical shyness. Physical and behavioral signs of awareness and the ability to describe and name it play a major role in reducing shyness. According to Hayes, Pankey, and Gregg (2002), in the ACT model, experiencing inner events, are not inherently harmful to human health. They cause trauma, because they are considered traumatic and we are looking to remove them. Participants in the experimental group who helped to learn faulting strategy relieved negative thoughts and consider these thoughts as an opinion, not as an absolute fact. This means that the greater the awareness of the workings of the mind is, the lesser the person is affected by shyness and this will ultimately lead to a better life. In this treatment, the model assumes that every individual is able to makes choices for her life and the term "values" is used to choose the direction. Values help people to define reasons for escaping something or experiencing mental turmoil and confusion. A transparent process of psychological values is one of the flexibility processes that helped the students choose their priorities for their career paths freely. They choose their objectives within the framework of these values, and commit acts in accordance with their personal values. Their daily lives with programs and efforts were in order to achieve the Goals that helped them overcome their shyness to achieve these Goals. This treatment also helped the students participating in this study have an understanding of the signs of their shyness and to not mix them with the language, and experience these symptoms fully. In fact,

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the full experience of the symptoms of shyness (behavioral-cognitive-physiological) was modified by the skill of mindfulness and changed the students' connection with their thoughts, which may have reduced the signs of shyness. Due to this content, students' shyness reduction can be explained.

With regard to the fact of the single-sex of the students and that all of them were from Zanjan, the generalization of the results of this study should be done with caution for other generations. This research was carried out on high school students; therefore, its generalization to other educational levels should be carried out with caution. Since the findings of the study showed that this treatment has been effective on the shyness of the students, it is recommended that counselors in schools and educational centers promote the students' mental health by conducting workshops with acceptance and commitment therapy at schools.

All procedures performed in the study involving human participants were in accordance with the ethical standards of the institution and/or the national research committee, and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

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