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Effectiveness of Acceptance and Commitment Therapy on Perfectionism and Sense of Shame in Students

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The present experimental study aimed at investigating the effectiveness of Acceptance and Commitment Therapy (ACT) on the perfectionism and sense of shame in students of Isfahan University using a pretest-posttest design. A number of 30 male students were recruited based on inclusion and exclusion criteria, as well as a clinical interview conducted by a specialist. Those who had no symptoms of severe psychological or personality disorders on DSM-5 were selected and randomly divided into two experimental and control groups. The experimental group received 8 sessions (90 minutes sessions per week, during two months) of the ACT while the control group experienced none. Data were gathered before and after the last session of the therapy by the Ahvaz Perfectionism Questionnaire (Najarian, Attari & Zargar, 1999) and Test of Self-Conscious Affect (Tangney, 1989). The

SPSS software, version 18 was used to analyze the data. Results of MANCOVA indicated that the ACT reduced perfectionism (P< .001) and the sense of shame (P<.05) in the experimental group. Accordingly, it is inferred that the ACT is generally effective in reducing perfectionism and sense of shame. Therefore, this affordable approach can be used to create the right impression and increase the real self in Iranian students in order to have a better psychological status.

Keywords: Acceptance and Commitment Therapy, perfectionism, sense of shame

Today, students are considered one of the main goals in most human societies and their roles have maintained active and dynamic in political, social, economic, and cultural fields. In fact, students are known as people with high social relationships who cannot achieve a proper social and personal development if they have anxiety, hesitation, inner blame, and fear of social situations. In addition, they do not enjoy much success in terms of education and social situations, which leads to disruptions in the development of societies (Badrian, 2015). According to Chang, Sanna, Chang & Bodem (2008) perfectionism and sense of shame are among the issues that have negative consequences for students' physical and psychological well-being because these two factors reduce the students' ability, performance, and effectiveness and as a mediator, they cause depression and other disorders as well. One of the important achievements of psychology in recent decades is having knowledge about the characteristics of the perfectionist personality the most obvious of which is the individual’s attempt to flawlessly and fully representing himself. In principle, people who have a moderate degree of perfectionism are respected and praiseworthy, but extreme perfectionism is the characteristic of those people who wish to be excellent in all aspects of their lives (Flett & Hewitt, 2002). Furthermore, Erozkan, Karakas, Ata & Ayberk (2011)

consider perfectionism as an important personality structure in mental health and academic performance. To their opinion, perfectionist people are believed to have a set of hard, unrealistic, and high standards for themselves. These people evaluate their performance only in a flawless framework and engage in thinking all or nothing when evaluating their performance. Moreover, the success of these people occurs when they are able to achieve a high standard.

For a better understanding of perfectionists, Flett & Hewitt (2002) classified individuals with three types of perfectionism including self-oriented, socially-prescribed, and other-oriented perfectionism. There are similar behaviors such as common desire and motivation for being excellent, having unrealistic expectations and standards, critical and intense evaluations, and equating one's worth with one's own performance in these three types of perfectionism. Longbottom, Grove & Dimmock (2012) categorized the perfectionists into different subgroups of adaptive and maladaptive. In their view, individuals with adaptive perfectionism are positively associated with the cognitive-motivational aspect of self-efficacy, planning, and ongoing physical activity while maladaptive perfectionism is significantly related with prevention, fear of failure and not succeeding, and avoidance of physical activities.

It must be acknowledged that perfectionists usually attempt to achieve unattainable outcomes which place them at a high risk for mental disorders. A review of previous findings indicates that different relationships exist between perfectionism and psychological symptoms (Lemyre, Hall & Roberts, 2008; Appleton, Hall & Hill, 2009). For example, different dimensions of perfectionism are correlated with extreme forms of self-

critique, maladaptive cognition, and negative emotional responses to the consequences of success and progress. Moreover, these dimensions are related to some cases as fear of failure, state and trait anxiety, feelings of guilt, sense of shame, low self-esteem, and depression (Lemyre et al., 2008). In other studies, perfectionism has a significant relationship with symptoms of depression, anxiety, suicidal thoughts (Stoeber, Feast & Hayward, 2009), eating disorders (Dour & Theran, 2011), low positive emotions (Flett, Blankstein & Hewitt, 2009), and more social anxiety and low psychological well-being (Laurenti, Bruch & Haase, 2008).

A number of researchers pointed that perfectionism can lead to personality vulnerability such as setting extreme goals and irrational beliefs, cruel self-criticism, rumination, and focusing on inadequacies, especially when there is a difference between the performance of these individuals and their ideal goals (Chamberlain & Haaga, 2001). O'Connor, Rasmussen & Hawton (2010) concluded that many students were developing their perfectionist tendencies and made significant standards for it. Most often, perfectionism is believed to be a positive factor leading to more effort in people. However, Chang et al. (2008) suggest that perfectionism produces negative outcomes such as anxiety and depression in individuals.

Other studies demonstrated that perfectionism has other consequences such as anger, sense of guilt, and shame (Flett, Besser, Davis & Hewitt, 2003; Stoeber, Kemp & Keogh, 2008). As stated by Gilbert and Proctor (2006), the shame that comes from perfectionism is a widespread phenomenon that has various meanings in different families and societies. In the sense of shame, there is no consensus on the definition of shame although in most cases it is conceptualized in two different

elements. The first element is referred to as the “external shame”, which is related to the thoughts and feelings of how one person exists in the minds of others. The second one is called "inner shame", which is related to the inner dynamics, feelings, and judgments of the individual.

The sense of shame is identified in most of the psychological traumas (Budden, 2009). Shame is a painful feeling which is associated with many psychological problems including aggression, physical impairment, anxiety, obsessive-compulsive disorder, interpersonal sensitivity, depression, drug abuse, and low self-esteem (Ellison, Lennon & Pulos, 2006). Hence, Mascolo and Fischer (1995) believed that sense of shame is a disgusting experience related to the avoidance and withdrawal patterns. It is worth noting that humans experience a sense of shame in everyday situations. People may be aware of this painful feeling or experience it unconsciously. According to Mills (2005), when we use phrases like feeling embarrassed, low self-esteem, shyness, the feeling of being ridiculous, degradation, and humiliation, we actually talk about the shame.

Roseman (1984) proposed that shame was the result of being aware of the opposition by the others. Several studies in this regard indicated that many people, who feel embarrassed and shameful of their relatives, go away from social activities, avoid receiving help and are not able to solve their problems (Stemberger, Thomas, Mansueto & Carter, 2000; Hayes, Storch & Berlanga, 2009).

Additionally, Gilbert and Andrews (1998) indicated that shame was associated with a common sense of personal incompetence and failure and the beliefs of inner shame (e.g., I am bad or defective) often led to the beliefs of external shame,

for instance, "others think that I am bad or defective". Therefore, it was concluded that external shame hides some aspects of self or behavior. Lewis (2003) found the outcome of shame as a continuing disorder in explorative behavior, confusion in thinking, and inability to speak. He believed that the feeling of shame was generally accompanied by a painful affection often associated with perceptions of personal characteristics (e.g., body shape, size, and appearance), personality traits (boredom), or behaviors that were not interesting to the others (fraud or theft) normally leading to a rejection or a kind of social loss.

Hayes et al. (2009) supposed that shame was one of the frequent and dangerous features of some clients who showed self-harming behaviors. Lutwak and Ferrari (1997) declared that the sense of shame was correlated with great distress, social avoidance, interpersonal anxiety, and fear of social evaluation which were significant predictors of being susceptible to feelings of shame. Based on the results, the importance of social anxiety in treating those people susceptible to shame was emphasized. In addition, Zhong et al. (2008) concluded that feelings of shame had an important role in social anxiety. Further, the feeling of shame and personal factors such as anger and introversion-extroversion were related to the symptoms of social anxiety among Chinese students.

In this regard, it should be pinpointed that various medications and psychotherapeutic approaches like cognitive-behavioral, psychoanalysis, schema therapy, and the like have been undertaken to reduce perfectionism and anger. However, few studies have been performed regarding the effects of psychotherapy third-generation treatment such as acceptance and commitment therapy (ACT) on these psychological variables. Although little time has passed since conducting

research and clinically using the ACT, it has been welcomed by clinical experts and its effect on anxiety and depression has been confirmed (Lappalainen, Granlund, Siltanen, Ahonen, Vitikainen & Tolvanen, 2014).

According to Hayes (2005), accept-based treatments rely on the hypothesis that mental illness is associated with attempting to control or avoid negative thoughts and emotions. These therapies emphasize the change in the relationship between clients and their internal experiences and avoidance (Roemer & Orsillo, 2005). The ACT is different from traditional cognitive-behavioral therapy. Its underlying principles include acceptance or tendency to experience pain or other disturbing events with no action to restrain them and a value-based action or commitment with a willingness to act which are as a meaningful personal goal leading to healthy functioning in interaction with other non-verbal connections. Furthermore, this approach involves exposure-based exercises, linguistic metaphors, and methods such as mental care (Hayes, 2005).

The cognitive-behavioral therapy has several limitations such as having multiple guidelines, as well as lengthy and numerous internships for each disorder. Moreover, it includes the complexity of the dissemination process and the development of therapeutic guidelines (Nathan & Gorman, 2015). Therefore, ACT was introduced in response to these limitations. This treatment mainly aimed to create mental flexibility, that is, to develop the ability to make practical choices among different alternatives which are more practical, rather than merely avoiding the disturbing thoughts, feelings, memories, or desires that are imposed upon the individual. Based on previous studies, it is concluded that the use of ACT to normalize the

psychological status of the individuals is an appropriate approach which needs further evaluation among Iranian students. Therefore, considering the importance and objectives of this subject, this study sought to answer the following assumptions:

1. ACT affects students' perfectionism.
2. ACT affects students' sense of shame.

Method

The current experimental study was implemented employing a pretest and posttest design including a control group. The population included all male students of Isfahan University with both Bachelor and Master Degrees (2015). The samples were randomly selected and included in the study. College and dormitory students of Isfahan University were first invited to participate in the research. Then, volunteers were evaluated by a clinical psychologist in order to measure the including and excluding criteria of the research as well as taking a clinical interview.

The inclusion criteria were: studying at undergraduate or postgraduate level, lack of diagnosis of severe psychological or personality disorder based on the diagnostic statistical manual of mental disorders (DSM-5), lack of severe physical impairment preventing regular attendance at training sessions, and gaining one standard deviation higher than the mean in perfectionism and shame questionnaires.

The exclusion criteria encompassed: having a diagnosis on the first or second axis; dissatisfaction for attending the sessions; and having the problems and obstacles which the interviewer identified as those preventing the students from continuing to attend the sessions.

Accordingly, a total of 30 students were selected based on the inclusion and exclusion criterion and were then randomly assigned into two experimental and control groups (15 students each). Subsequently, the experimental group received 8 sessions of ACT during two months (90-minute session per week). Conversely, the control group remained on the list during this period and did not receive any psychological intervention. Pretest and posttest were administered to both experimental and control groups before and after the first and last sessions of the intervention.

Instruments

Ahwaz Perfectionism Scale

It is a self-reporting scale consisting of 27 items created by Najarian, Attari and Zargar (1999) out of analyzing the factors in a sample of 395 students at Shahid Chamran University and Islamic Azad University, Ahvaz Branch. A 4-point Likert-type scale was used to score the data. The Cronbach's Alpha coefficient for the whole sample was .90. In this study, the Cronbach's Alpha coefficient of this questionnaire showed a total estimation of .78, indicating that the instrument enjoyed a good degree of reliability.

Test of Self-Conscious Effect

This test is one of the most widely used tools in shame-related research which was first designed by Tangney (1989) and then translated into different languages such as Japanese, Dutch, Italian, and the like. It is a self-assessment questionnaire that provides 16 hypothetical situations (scenarios) of everyday life to the students, and then they are required to rank the

responses on a 5-point Likert-type scale. The reliability of the test was estimated higher than .85 through Cronbach's Alpha coefficient. This scale was translated into Persian by Anooshehi, Sanaei & Porshahriari (2008) and its psychometric properties were investigated as well. The retest coefficient of this test was .87 after four weeks. In addition, the Cronbach's Alpha coefficient for this questionnaire was .84.

Acceptance and Commitment Therapy (ACT)

The ACT is a psychotherapy intervention that is performed in a group. The treatment includes8 sessions which take place within 2 months (90 minutes per week). In this study, psychotherapy sessions were initially organized by a group of 15 (intervention group) students who were present at all treatment sessions. The treatment was undertaken by a clinical psychologist who received necessary training regarding ACT. Further, a trained fellow was presented along with the therapist and in some cases and provided guidance to the group who needed a better understanding of the therapeutic content. A summary of ACT sessions is presented in Table 1.

All data were analyzed by SPSS (statistical package for the social sciences) software, version 18. Descriptive statistics including mean (M), standard deviation (SD), and number (N) were used. To assess inferential statistics parametric test presumption and multivariate covariance analysis (MANCOVA) were employed at the significant level of .05.

Table 1
Summary of ACT Sessions

Sessions	Content
First	**Aims:** Familiarity with group members and their expectations; Determining the policy of the group; Establishing the relationships with members; And distributing research questionnaires. **Strategies:** Psychological training; Explanations for perfectionism, anger, and shame; A brief description of the therapeutic method; And providing homemade homework
Second	**Aims:** Decrypting the strategies used by the clients and their inefficiencies; Weakening the dependence of the clients on their strategies; And creating a tendency to release the inefficient strategies. **Strategies:** Helping the clients to assess their experiences; Creating and developing efficiency as a benchmark; Calling for creative disappointment; Distinguishing between blaming and responsibility; And avoiding old strategies and asking for the new ones. **Techniques:** The metaphor of a man in a well, the metaphor of reed, and pulling a rope with monster metaphor.
Third	**Aims:** Controlling the problem, strategies which are arbitrarily learned and maintained and replacing the control by desire. **Strategies:** Demonstrating how the control creates problems; Explaining the short-term impact of control and its failure in the long-term; And training the conditioning model. **Techniques:** Using internal experience law, metaphors of the polygraph machine, hungry tiger, and two waves.
Fourth	**Aims:** Teaching the language limitations to understand direct experiences, weakening merging oneself with the language, and teaching non-judgmental knowledge. **Strategies:** Explaining how languages are behind the experiences; Distinguishing between images and representations of performance; And teaching strategies for breaking, developing inclination, and acceptance skills as a way to control and counteract. **Techniques:** Your mind is not your friend, the metaphor for a place to sit, the practice of lion, and the metaphor of the bus.
Fifth	**Aims:** Undermining the dependence on the concept of self, creating an awareness of the observer self, and distinguishing

	between the observer and the conceptual selves. **Strategies:** Helping to differentiate between consciousness and the content of consciousness; Undermining self-evaluation; And showing the arbitrariness of the content. **Techniques:** Bipolar Mind Training, Chess Screen Metaphor, and Observer Exercise.
Sixth	**Aims:** Achieving the highest level of awareness and acceptance. **Strategies:** Considering mindfulness techniques. **Techniques:** The train of mind, the leaves on the water, and see the physical feelings practices.
Seventh	**Aims:** Understanding the importance of life-based values, the performance of goals in the production of a healthy life, and the development of a framework of values. **Strategies:** Introducing the concept of value; Distinguishing between choices and judgments; Showing the dangers of focusing on the results; And clarifying the practical values of life. **Techniques:** Metaphors for gardening, passing through the mountain, telling a story of life, and classifying the values.
Eighth	**Aims:** Understanding the qualities of acceptance, desire, and choice; Understanding the nature of acceptance and commitment and linking these two; And examining the barriers to their acceptance and resolving them. **Strategies:** Demonstrating that qualitative acceptance is not restrictive but supports the commitment and determines the patterns of action that are appropriate to the values. **Techniques:** Acceptance practice, swamp metaphor, balloon fly metaphor, empty seat training, and exposure practices.

Results

Generally, 30 male students participated in this study M ± SD age of which was 25.43 ± 3.73 and 24.86 ± 4.02 for the experimental and control group, respectively. Descriptive statistics of the students regarding perfectionism and sense of shame are presented in Table.

Table 2

Mean and Standard Deviation of Perfectionism Scores and Sense of Shame for Both Groups in Pretest and Posttest Stages

Variable	Stage	N	Experimental Group		Control Group	
			M	SD	M	SD
Perfectionism	Pretest	15	59.73	7.62	61.93	7.58
	Posttest	15	49.53	5.96	54.13	4.06
Sense of shame	Pretest	15	57.53	5.19	60.20	6.14
	Posttest	15	38.00	6.46	48.26	5.22

Based on the results of Table 2, the mean of perfectionism scores of the experimental and control groups was 59.73 and 61.93 in the pretest, respectively. However, in the posttest, the mean score was 49.53 and 54.13 in the experimental and control groups. Additionally, the mean of shame scores was 57.53 and 60.20 for the experimental and control groups in the pretest while in the posttest, it was equal to 38.00 and 48.26 for the experimental and control groups, respectively. In addition, as shown in Table 2, the mean of posttest in both experimental and control groups was lower than that of the pretest. However, the adjusted mean of perfectionism of the experimental group (M = 49.53, SD = 5.96) was considerably less than that of the control group in the posttest (M = 54.13, SD = 4.06). Further, the mean of the sense of shame for both experimental and control groups in the posttest was lower than that of the pretest. However, the adjusted mean of the sense of shame for the experimental group (M = 38.00, SD = 6.64) in the posttest was extremely less than that of the control group in the posttest (M = 48.26, SD = 5.22).

As can be observed the normal distribution assumption for the scores of perfectionism and sense of shame was confirmed in both experimental and control groups by Kolmogorov-Smirnov and Shapiro-Wilk Tests (P >.05). Furthermore, the Levene's test was used to test the equalization of variances, the results of which demonstrated that the assumption of equality of variances was confirmed for the research variables (F=.370, Sig= .55 for perfectionism & F= .97, Sig= .50 for the sense of shame). The covariance coherence was investigated using the Box test, the result of which is provided in Table 3. As it is shown, the assumption related to the equal covariance of the scores of the dependent variables is established and observed (F= .99, Sig= .49).

Table 3
Box Test Results of **Covariance Coherence**

Test	F	df1	df2	Sig.
Box test	.989	36	2638.045	.487

Based on the data presented in Table 4, by controlling the pretest scores, a significant difference was observed between the adjusted mean of perfectionism scores in both groups in terms of group membership in the posttest (P < .01). The effect level indicates that group membership in the posttest stage explains 31% of the differences in the variance of perfectionism scores. Moreover, the statistical power of more than 80% demonstrates a high statistical accuracy of this test and the adequacy of the sample size. Therefore, the hypothesis regarding the effectiveness of acceptance- and commitment-based group therapy on the perfectionism of the students was confirmed.

Considering the significance of these mean differences, it can be concluded that ACT resulted in a significant decrease in perfectionism of the experimental group in the posttest phase (P <.001).

Table 4

The MANCOVA Results of ACT on Student's Perfectionism and Sense of Shame

Source of Change	Phase	Sum of Squares	df	Mean of Square	F	Sig.	Eta Square	Observed Power
Perfectionism	Pretest	315.957	1	315.957	27.893	.001	.582	.999
Group		103.507	1	103.507	9.138	.007	.314	.820
Sense of shame	Pretest	29.539	1	29.539	1.323	.264	.062	.195
Group		133.535	1	133.535	5.980	.024	.230	.643

Additionally, the results indicated that there was a significant difference between the adjusted average scores of the sense of shame in both groups respecting group membership in the posttest (P < .05) by controlling the pretest scores. The effect level highlighted that group membership explains 23% of the

differences in the variance of the sense of shame scores in the posttest. This relationship was reported based on the effect size multiplied by 100. Similarly, the statistical power of more than 64% revealed the high statistical accuracy and adequacy of the test and sample size, respectively. Therefore, the hypothesis that group therapy based on acceptance and commitment was effective on the students' sense of shame was confirmed. Given the importance of these mean differences, it was concluded that ACT resulted in a considerable decrease in sense of shame of the experimental group in the posttest phase ($P < .05$).

Discussion

As previously mentioned, this study attempted to explore the effect of ACT on perfectionism and sense of shame among university students. The results indicated that ACT significantly reduced perfectionism in the students. In addition, it was effective in improving the violation of habits. Further, the impact of ACT was investigated on different factors such as Trichotillomania (TTM) disorder in adolescents (Woods, Wetterneck & Flessner, 2006), anxiety (Lappalainen et al., 2014), depression, job stress, and some of its components including the role-overload, role ambiguity, and the boundary of roles and responsibilities (Zettle, 2007). Furthermore, this treatment is useful for a wide range of psychotic disorders such as psychosis (White et al., 2011), chronic pain (Mccracken & Gutiérrez-Martínez, 2011), resistant post-traumatic stress disorder (Dour & Theran, 2011), post-traumatic stress disorder (Walser & Westrup, 2007), and epilepsy (Lundgren, Dahl, Melin & Kies, 2006).

With regard to the effect of ACT on perfectionism, it should be noted that using such a treatment by increasing mental

acceptance of internal experiences, the students are taught to improve the state of their own lives rather than intellectual and practical avoidance of negative thoughts and emotions (i.e., fear and anxiety) which are resulted from perfectionist thoughts. Moreover, the students think about their personal values and get rid of their problems, especially those that are less avoidable. According to Lundgren et al. (2006), people can improve their mental health and well-being in this way. Additionally, the ACT is a balanced sense of awareness without judgment that helps to clearly understand and accept the emotions and physical phenomena as they happen (Zettle, 2007). Therefore, ACT makes perfectionist students accept their emotional and physical symptoms. In addition, it allows students to accept the emotions that reduce their attention and sensitivity in reporting these symptoms reducing perfectionism, negative emotions, and social problems occurring in the students.

Further, the results revealed that ACT significantly decreasing the students' sense of shame. These results are consistent with those of previous studies (Gifford et al., 2011; Goss & Gilbert, 2002. Gifford et al. (2011), for instance, indicated that ACT in a 4-month follow-up reduced the sense of shame in people with addiction.

Accordingly, it can be concluded that one of the main goals of the ACT is to increase the psychological flexibility and reduce the experiential avoidance. An experiential avoidance occurs when an individual does not want to continue to contact with a particular inner experience such as the sense of shame and to work to alter the shape, frequency, or sensitivity of the events even if this attempt leads to psychological harm. For a person, it is not just the original position that is avoided, but the

memories of that position, talking about it, or other situations that cause shame. Furthermore, such situations may cause the person to move away from the environment. It should be emphasized that experiential avoidance is associated with negative consequences and the use of avoidance strategies such as denial, repression, and inhibition results in negative health consequences (Hayes, Strosahl & Wilson, 1999). Moreover, according to Hayes (2005), a similar process occurs in people who suffer from shame. These people have distracting thoughts about the fear of being ridiculed and denied by others. Therefore, people insist on controlling their thoughts and feelings and may avoid situations or activities that stimulate these thoughts and feelings. As pointed by Forman and Herbert (2009), in some cases, this avoidance can prevent people from encountering important situations of life in order to avoid uncomfortable thoughts and feelings. Frustrated by the lack of control of these distressing thoughts and emotions, one throws away more and more of the things that matter to him such as health, work, friends, family, and the like.

ACT emphasizes values and acceptance rather than experiential avoidance thus it is very helpful for people suffering from shame. In other words, the goal of this treatment is to help people to experience shame-related feelings and thoughts only as a thought and feeling rather than responding to it. Additionally, in this perspective, people are concerned with what is important in their lives and what is in line with their values (Hayes et al., 1999). According to Batten (2011), the reason for the success of ACT with various clinical types and groups of people is that this approach focuses on functional processes instead of paying attention to the shape or frequency of the symptoms that are an attribute of a disorder. In fact, what

is meant by ACT is not a specific diagnostic class but behavioral patterns that prevent the successful life. Consequently, the therapist and the client work on improving the client's life rather than concentrating on reducing the symptoms.

Generally speaking, it was revealed that ACT, which is a low-cost and cost-effective psychotherapeutic approach, can be effective in reducing the characteristics of perfectionist personality and sense of shame in the students. In addition, this therapeutic approach can be a guide for counselors and therapists to promote psychological well-being. Further, counseling and psychology centers of universities and institutions can use ACT to hold practical classes and workshops for the students to improve their mental health. In this study, there were some limitations such as using a small sample size and including only the male students. Furthermore, the researchers attempted to accurately present the results without any bias. However, it is unclear whether the positive effect results in the experimental group are due to the positive attention that they have received in the treatment sessions or the actual ACT. In fact, the effects of Hawthorne (also referred to as the observer effect) and the positive expectations of the students were not precisely consideration. Accordingly, considering the limitations of this research, researchers are recommended to evaluate the effectiveness of this psychotherapy method in other psychological problems such as depression, anxiety, and anger in future studies.

All the procedures which are performed in different studies involving human participants are in accordance with the ethical standards of the institutional and national research committee and Helsinki Declaration (1964) and its later amendments or

comparable ethical standards. Moreover, for this type of study, formal consent is required. It should be noted that the authors took the informed consent from all the students and assured them of confidentiality of being studies. Additionally, after the data analysis, the ACT was administered to the control group.

There is no conflict of interest to declare.

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