



Examining Aggression, Rumination and Self-Control under the Influence of Emotion Regulation Training and Mindfulness Training in Students with Low Academic Performance

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ABSTRACT

Background and Aim: Academic performance has the main role in the students' future success. The purpose of this study was to examine aggression, rumination and self-control under the influence if effectiveness of emotion regulation training and mindfulness training in female students with low academic performance in Junior high school in Tabriz. **Methods:** The research design was semi-experimental with pre-, and post-test, two experimental groups and one control group. The statistical population included all the female junior high school students in Tabriz, region one with low academic performance among them 75 students were selected as the research sample and randomly assigned in three groups (two experimental and one control group). The instruments of data collection included: Tangey's self-control scale, Boss & Perry' aggression questionnaire and Nolen-Hoeksema & Marrow' mental rumination scale. Emotion regulation package was performed in one experimental group and mindfulness package was performed in the other experimental group. Control group received no intervention. The research hypotheses were analyzed by one way ANCOVA. **Results:** The findings indicated that the method of emotion regulation training is more effective on aggression than mindfulness training, but regarding rumination and self-control, no significant difference was observed between two groups. Also, the results showed that there was significant difference among two experimental groups, i.e. emotion regulation training and mindfulness training and control group regarding aggression, rumination and self-control and effectiveness of these methods on decreasing mental rumination and aggression and increasing self-control was confirmed. (P=0.05). **Conclusion:** The results of this research showed that the use of emotion regulation and mindfulness methods can be effective in reducing aggression and mental rumination and increasing self control of students with low academic performance.



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Introduction

Academic performance is defined as the ability to program the activities related to study, self-efficacy, motivate oneself (Cernat & Moldovan, 2018). Academic performance could be considered as one of the main efficiencies of the educational systems (Azimpour, et al, 2021). The review of the literature showed that the students with proper academic performance are accepted by their peers, parents and also their teachers and have more self-esteem and feeling of competence. In contrast, the students with low academic performance have feeling of incompetence and they could not continue their education (Mansoori & Farhadi, 2019). Academic performance is under several cognitive and behavioral factors. One of them is aggression that is the most studied issue among all the children and adolescents' behavioral problems (Chung, 2019). Aggression is a complicated concept that on one hand is influenced by situational and psychological factors and on the other hand is under the influence of genetic factors (Street, et al, 2016). The other concept studied in this research is self-control that is defined as proper use of emotions. In words, self-control is great control of feelings regulation that leads to increased personal capacity to relieve oneself, understand common anxieties, and depression (Mayer, et al, 2010). Of the main cognitive factors that influences the adolescents is rumination that is defines as repeated thought about a certain issue. Several interventions have been proposed by the researchers to modify aggression and rumination and increase self-control in adolescents. Review of the literature showed that there is no comparative research which examines the effectiveness of both emotion regulation training and mindfulness training in adolescents. So, the purpose of this study was to compare the effectiveness of emotion regulation training and mindfulness training on aggression and self-control and rumination of female students with low academic performance in Junior high school in Tabriz. In order to get to this purpose, three hypotheses have been proposed, hypothesis one is: the effectiveness of emotion regulation training and mindfulness training on aggression of female students with low

academic performance. Hypothesis two: emotion regulation training and mindfulness training on self-control of female students with low academic performance. And Hypothesis three: emotion regulation training and mindfulness training on rumination of female students with low academic performance.

Method

The research design was semi-experimental with pre-test, and post-test, and two experimental groups with one control group. The statistical population in this study included all the female students in junior high school in Tabriz, (totally 6070 students in public schools and 2325 students in non-public ones). Among them, 19 schools had the least academic performance. Three schools in region one were selected with low academic performance (by total average of 15.5, 15, and 15.06). Of this statistical population, 75 students who were selected randomly were chosen as the research sample and randomly assigned in three groups (two experimental groups and one control group, 15 students for each group). The instruments of data collection in this study included: Tangey's self-control scale, that is made in 2004 by Tangey et al, and is made up of 13 items; this scale validity and reliability was confirmed in different studies by several researchers. The maximum score for this scale is 65 and the minimum one is 13. Boss & Perry' aggression questionnaire, made in 1992 by Buss & Perry, made up of 29 items; this scale validity and reliability was proven in different studies. The maximum score for this scale is 145 and the minimum one is 29; this scale Cronbach alpha was reported as 0.87, and retest score as 0.79. The other scale was Nolen – Hoksema's rumination scale. Also, two different instructional programs have been used in this study. Emotion regulation package was performed in one experimental group. This package included the following items: selecting the situation, reforming the situation, spreading the attention, cognitive appraisal, response modification, evaluation and apply. Also, Mindfulness package was performed in experimental group; including the following items: training mindful breathing, body monitoring technique training, training induction of negative thought and then positive

one; in this research, like any other experimental study, the control group received no intervention

Results

In this study, the research hypotheses were analyzed by one way ANCOVA. At first, pre-assumptions of parametric tests were examined. To do this In this study, data was collected by questionnaires and also in the section of library studies, recent references and scientific resources were collected and studied. The research hypotheses were analyzed by one way ANCOVA. At first, pre-assumptions of parametric tests were examined. To do this, a) normality of data distribution was considered. Regarding this, Shapiro –Wilk was applied. The values of both Shapiro –Wilk test related to the research variables in both steps of pre-test and post-test were insignificant in the level of 0.05 that indicates normal data distribution in both steps. b) independence test of pre-test variables: to test the assumption of independence of pre-test variables from group membership, multi- variate analysis of variance (MANOVA) was used. The results showed that F value is insignificant in the level of 0.05. c) test of error variances equality, test of homogeneity of regression line, homogeneity of variances matrix and covariance of dependent variables were done to test the assumption of homogeneity of error variances of aggression post –test among the groups, so this assumption is confirmed. Considering the first hypothesis and the analysis related to it, the findings indicated that the method of emotion regulation training is more effective on aggression than mindfulness training, but regarding self-control, no significant difference was observed between two groups.

Also, the results showed that there was significant difference among two experimental groups, i.e. emotion regulation training and mindfulness training and control group regarding aggression and self-control and effectiveness of these methods of emotion regulation training and mindfulness training on decreasing aggression and increasing self-control was confirmed.

Conclusion

Therefore, regarding the findings of this research and what was observed through data

analysis, it could be concluded that of emotion regulation was significantly more effective than training mindfulness regarding aggression decrease and could be performed on this group of female high school students. This finding is consistent with Faani, et al (2021), Zuzama et al (2020). Also, the regarding the effectiveness of both methods of emotion regulation training and training mindfulness on rumination the results is consistent with falsafi & Dashtbozorgi (2018). The results of this research showed that the use of emotion regulation and mindfulness methods can be effective in reducing aggression and increasing self-control of students with low academic performance. Finally, it is noted that this research had limitations, too. It is recommended that the school counselors consider performing these methods for students. Especially, during pandemic period in which the adolescents' emotions need to be regulated more.

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Conflict of Interest

According to the authors, this article has no financial sponsor or conflict of interest.

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