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ORIGINAL ARTICLE

Aggressive Behavior under the Influences of Trainings Based on Emotion Regulation and Mindfulness in Female Students

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Abstract

Aim: The purpose of this study was to compare the effectiveness of emotion regulation training and mindfulness training on aggression of female students with low academic performance in junior high schools in Tabriz. The research design was quasi-experimental with pre-test, and post-test, two experimental groups and one control group. The statistical population included all the female junior high school students in Tabriz with low academic performance, among whom 75 students were selected as the research sample and randomly assigned into three groups (two experimental groups and one control group). Buss and Perry's Aggression Questionnaire was used for data collection. An emotion regulation package was run for one of the experimental groups and a mindfulness package for the other experimental group. The control group received no intervention. The research hypotheses were analyzed by one way ANCOVA. The findings indicated that emotion regulation training was more effective on aggression than mindfulness training. Furthermore, a significant difference was observed between the two experimental groups and the control group regarding aggression, and the effectiveness of these methods on decreasing aggression was confirmed. Accordingly, emotion regulation and mindfulness methods can be effective in reducing aggression of students with low academic performance.

Keywords: *Training emotion regulation, Mindfulness training, Aggression*

Introduction

Academic performance is defined as the ability for programming, self-efficacy, motivation, and reducing anxiety (Cernat and Moldovan, 2018). Academic performance can be one of the main efficiencies of the education system (Azimpour, et al., 2021). Review of the literature showed that the student with proper academic performance are accepted by their peers, parents and teachers, and feel self-esteem and competent. In contrast, students with low academic performance feel incompetent and fail to continue their education (Mansoori and Farhadi, 2019). Research has shown that adolescents' behaviors are mostly determined by emotions (Llorca et al., 2016). Aggression is the most studied issue among all the children and adolescents' behavioral problems (Chung, 2019). Aggression is a complicated concept influenced by situational, psychological and genetic factors (Street et al., 2016). The purpose of this study was to compare the effectiveness of emotion regulation training and mindfulness training on aggression of female students with low academic performance in junior high schools in Tabriz. For this purpose, we proposed this hypothesis: the effectiveness of emotion regulation training and mindfulness training is different on aggression of female students with low academic performance.

Methodology

The research design was quasi-experimental with pre-test, post-test, two experimental groups and one control group. The statistical population in this study included all female students in junior high schools in Tabriz, (totally 6070 students in public schools and 2325 students in private ones). Among them, 19 schools had the least academic performance. Three schools with low academic performance were selected in region one (GPA's of 15.5, 15, and 15.06). Of this statistical population, 75 students were selected randomly as the research sample and randomly assigned into three groups (two experimental groups and one control group, n=15 each). Buss and Perry's Aggression Questionnaire (1992) was used to collect the data. The validity and reliability of this 29-item questionnaire have been confirmed in different studies ($\alpha=0.87$, test retest score=0.87). The maximum score for this scale is 145 and the minimum score is 29. Furthermore, two different educational packages were used in this study. Emotion regulation package was run 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 application. A mindfulness package was also run in the other experimental group including the following items: training mindful breathing, body monitoring technique training, training induction of negative thought and then positive thought.

Results

In this study, data was collected by questionnaires and review of literature. The research hypothesis was analyzed by one way ANCOVA.

First, pre-assumptions of parametric tests were examined. To this end, normality of data distribution was assessed by Shapiro –Wilk and Kolmogorov-Smirnov tests. The values of both Shapiro –Wilk and Kolmogorov-Smirnov tests related at both stages of pre-test and post-test were insignificant at significance level of 0.05, which indicates normal data distribution at both stages. Then independence test of pre-test variables was checked by multi-variate analysis of variance (MANOVA). The results showed that F was insignificant at significance level of 0.05. This indicates that intervention, there was no difference between the experimental and control groups regarding the research variable of aggression. Therefore, the assumption of independence of pre-test variables from group membership among data related to the research variables is confirmed. Next, error variance equality was assessed to check homogeneity of error variances of aggression post–test among the groups through Levene's test. The results showed that error variances were insignificant at significance level of 0.05, so this assumption was confirmed. Considering the first hypothesis and its analysis, the findings indicated that the method of emotion regulation training was more effective on aggression than mindfulness training.

Table 1. Results of one way ANCOVA regarding the effect of independent variable on aggression variable

Dependent variable of aggression	Mean of intergroup squares	df	Mean of error squares	F	p	η^2
Pre-test	405.12					
Group	498.69					
Error	1092.11					

Also, the results revealed a significant difference between the two experimental groups and the control group regarding aggression, and the effectiveness of these methods of emotion regulation training and mindfulness training on decreasing aggression was confirmed.

Discussion and conclusion

Based on data analysis and the results, it can be concluded that emotion regulation was significantly more effective than training mindfulness for decreasing aggression in female high school students in Tabriz. This finding is consistent with that of Faani et al. (2021) and Zuzama et al. (2020). Also, regarding the effectiveness of both methods of emotion regulation training and training mindfulness, the results are consistent with Sadegi et al. (2020). Generally, the results of this research showed that emotion regulation and mindfulness methods can be effective in reducing aggression of students with low academic performance. This research had

limitations, too. Performing this study during COVID-19 pandemic was a main limitation. It is recommended that school counselors consider performing these methods for students.

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