The Effectiveness of Self-encouragement Training on Reduce aggression and increase the academic self-efficacy of high school students

MARYAM SAFARA[1], ASIEH REZAEI NASAB [2,3], HOSSEIN SHAMSI GOOSHKI[4]
[1]Department of Psychology, Women Research Center, Alzahra University, Tehran, Iran
[2]MA in general psychology, Islamic azad university of qazvin science & research branch, Tehran, Iran
[3]Ministry of education, counselor of high school, Area 19, Tehran, Iran
[4]Medicine, Quran and Hadith Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran
*Corresponding author: Maryam Safara, Email: m.safara@alzahra.ac.ir

ABSTRACT

Background: One of the most commonly behavioral abnormalities is aggression. Children with aggressive behaviors encounter family, school and community with a variety of issues, for example, aggression reduces academic self-efficacy.
Aim: The present study was aimed at the effectiveness of self-encouragement training on reducing aggression and increasing the academic self-efficacy of high school students in Tabas.
Method: The present study is a semi-experimental two-group pretest-posttest design. The statistical populationwas all of high school male students of the first period (the ninth grade) in Tabas in the academic year of 2016-2017. To collect data, a sample of 30 people was selected by cluster random sampling. The tools used to achieve the research goals were academic self-efficacy questionnaire of McEilvey and Bunting (2002) and aggression questionnaire of Bass and Perry's (1992). Descriptive statistics such as mean, standard deviation and covariance analysis ofsingle variable and multivariate were used for data analysis.
Results: The results showed that the mean of aggression components was decreased and academic self-efficacy increased in experimental group compared to control group.
Conclusion: It can be concluded that self-encouragement training has been effective in decreasing aggression and increasing the academic self-efficacy in mothers of students with special learning disorder.
Keywords: Self-encouragement, aggression, academic self-efficacy

INTRODUCTION

The increase in social harms over the past few decades has prompted experts to look into the issue and find a solutions. The results of these studies showed that many social harms are caused by a lack of psychosocial skills needed to deal effectively with problems. One of the social harms is aggression. Aggression during adolescence not only harms victims of aggression, but also puts himself or herself at risk.Aggressive adolescents are more likely than non-aggressive adolescents to be rejected by peers, to commit crimes, to exhibit antisocial behavior, to be narcissistic, to have lower levels of education, and to engage in drug abuse[1]. The main point of research on aggression comes from its concept. A concept that also encompasses the structures of hostility, anger, and aggression. Anger can be thought of as emotion, resentment can be thought of as attitude, and aggression can be thought of as behavior. Anger is described as an emotional state that forms the basis of rancor and aggression. Rancor is an aggressive attitude that leads a person to aggressive behaviors, while aggression is considered as behavior that is done with the intention of harming and is visible[2]. In general, it can be said that aggression manifests in various forms such as harassing others, beating, insulting, etc., and its purpose is to harm oneself and others[3]. Various factors are effective in the occurrence of aggressive behavior. Biological and hereditary factors, environmental learning and cognitive processing as well as individual-related stimuli are the causes of aggression. The results of various researches show that aggression is one of the important indicators of some mental disorders such as conduct disorder and personality disorder[4].

According to the study background, aggression has a negative relationship with students' academic performance[5]. Therefore, another variable discussed in this study is academic self-efficacy. Self-efficacy beliefs are one of the ways that motivational researchers have conceptualized about the ability of student's beliefs. Self-efficacy was proposed by Albert Bandura in the form of cognitive-social theory[6]. It has been consideredthat academic self-efficacy is a concept related to self-efficacy, which refers to the student's belief in the ability to reach a certain level of homework. In fact, students with low perceptions of academic self-efficacy are more likely to engage in problems such as procrastination and academic failure. Due to the low resistance of these students to social pressures, they are always worried about being compared to others, seeming inappropriate to others and not being approved by them[7].

So far, many interventions have been done to reduce aggression and thus improve academic self-efficacy. One of the interventions that seems to be effective in this regard is self-encouragement training. Encouragement is one of the basic concepts of Adlerian psychology and Adler introduces it as one of the four human needs which includes the need for value, sense of capability, need for belonging and encouragement[8]. Encouragement is a process that focuses on personal resources and the potential to increase self-esteem and self-acceptance[9]. In general, encouragement is everything that makes one

person, to another human being with these characteristics: better feeling, more effective functions, more effective overcoming of problems, higher self-confidence, more desire to participate in the health of others and society. Alizadeh et al[10] in a study have concluded that encouraging education can increase self-efficacy and self-esteem of adolescent girls.

Since the basis of mental health promotion programs is primary prevention and at the same time the main method of primary prevention is education and awareness raising, and considering the important role of encouraging skills training in anger management and prevention of violence and promoting academic self-efficacy, as well as the important role of schools in providing and promoting this type of education and on the other hand, considering that critical review of research texts in the field of self-encouragement interventions have shown that most of the interventions performed on mothers with children with behavioral and mental retardation, addicted women, etc., and no research on promoting academic self-efficacy and reducing aggression through self-encouragement interventions has not been done in Iran, so it increase the importance of the present study. Therefore, the present study was conducted in line with the purpose of the effectiveness of self-encouragement training on reducing aggression and increasing academic self-efficacy of high school students in Tabas.

RESEARCH METHOD

Participants: The method of the present study was quasi-experimental and the design used in this study was a two-group pretest-posttest design (experimental group and control group). The statistical population of this study consisted of all high school male students of the first period ofTabas in the academic year 2016-2017. To select the sample, cluster random sampling method was used, so that among the high schools of the first period of Tabas, a high school was randomly selected and from this school among three classes (seventh, eighth and ninth), ninth grade was randomly selected (30 people including 15 people in the control group and 15 people in the experimental group). Inclusion criteria for students in this study were no history of hospitalization in mental hospitals, no other disorders, no history of drug abuse, no treatment or other effective methods, and willingness to participate in research.

Exclusion criteria from the study was absenteeism in training sessions.

Data collection tools: Academic Self-Efficacy Questionnaire: this questionnaire was designed by McIlroy and Bunting[11] to assess student's behaviors, programs, and academic organization. The questionnaire consists of 10 questions and students answer it based on a Likert scale with seven options from "Strongly Agree" (grade 1) to "Strongly Disagree" (grade 7). Therefore, the score range of this questionnaire is between 10 and 70 and the high score in this questionnaire means higher academic self-efficacy. McIlroy and Bunting[11] state the scale's validity coefficient of 0.81. Also, its validity was investigated by confirmatory factor analysis that the obtained indices of RMSEA = 0.02, GFI = 0.99, AGFI = 0.98 indicate the appropriate fit of the questionnaire with the data. Lavasani et al[12] showed the internal consistency coefficient of Cronbach's alpha as 0.75. In the present study, the total reliability of Cronbach's alpha method was 0.78.

Buss Perry Aggression Questionnaire: This questionnaire measures trait aggression using four subscales (physical aggression, verbal aggression, anger and hostility). The tool combines aggression in the instrumental, emotional, and cognitive domains and includes 29 items based on the Likert scale. Higher scores indicate more aggression. This questionnaire has extraordinary predictive power for laboratory environments and the real world[13]. The aggression questionnaire has good internal consistency (a = 0.89) and reliability by retest method (r=0.80)[14]. Validity of Aggression Questionnaire in Mohammadi[15] research using Cronbach'salpha, retesting and composition methods was 0.89, 0.78, and 0.73, respectively. It'sconvergent validity obtained by calculating the correlation coefficient of the subscales of this questionnaire with each other and with the whole questionnaire. These coefficients ranged from 0.37 to 0.78 and were significant[15]. In the present study, the total reliability of Cronbach's alpha method was 0.71.

Intervention: The students in the experimental group underwent Schwanker's self-encouragement training for 10 sessions of 60 minutes, two sessions per week, and generally 5 weeks[16]. The control group did not receive training. The content of these ten sessions is as follows.

Session	Brief description of the sessions
1	Introduce the concept of encouragement and training the behaviors and characteristics that are encouraging
2	Training the concept of goal-oriented human behavior
3	Training to encourage, admit mistakes and dare to accept imperfection
4	Learn loving thinking and encouragement
5	Expressing the effect of slander in the absence of others and occultation on people's relationships with each other
6	How to build positive relationships
7	This meeting is based on encouraging conversations.
8	Examine the individual role in difficult situations
9	Examination the person's perception of love and a sense of belonging to others
10	General evaluation of previous sessions

In this study, all relevant ethical principles have been observed, including the confidentiality of the questionnaires, the informed consent of the participants in the research, and the authority to withdraw from the research.

Statistical analysis: SPSS software was used for data analysis and multivariate analysis of covariance was used to test the hypotheses. The significance level was considered to be less than 0.05.

RESULTS

Descriptive findings are presented in the table 1. After confirming the defaults of multivariate analysis of covariance, i.e. test of homogeneity of the matrix of covariance, normality of the data, homogeneity of variances, then analysis was performed as follows.

As can be seen, the significance level of all four relevant multivariate statistics is less than 0.01 ($p < 0.01$). Thus, the statistically null hypothesis is rejected and it is determined that there is a significant difference between the experimental and control groups in the scores related to aggression in the post-test.

According to the results presented in Table 3, the obtained F value is significant for all components at the level of 0.01; therefore, the null hypothesis is rejected and the research hypothesis is confirmed. Due to the lower mean scores for the experimental group in the post-test stage compared to those for control group, it can be concluded that self-encouragement training is effective and reduces the aggression of high school students.

In Table 4, the F value is equal to 32.430 and its significance level is equal to 0.01. Therefore, the null hypothesis is rejected and the research hypothesis is confirmed. Based on this and considering the higher mean scores of the experimental group in the post-test, it can be concluded that self-encouragement training is effective and increases students' academic self-efficacy.

Table 1. Scores of aggression and academic self-efficacy in the experimental and control groups

Group	Variable	Pre-test		Post-test	
		Mean	SD	Mean	SD
Experimental	Physical aggression	21.27	5.79	18.26	5.25
	Verbal aggression	14.40	3.97	10.86	4.06
	Anger	18.80	3.98	15.66	3.75
	Hostility	21.13	4.50	17.86	4.77
	Aggressive overall score	75.60	18.16	62.66	17.72
Control	Physical aggression	21.73	6.22	20.80	6.15
	Verbal aggression	14.20	4.49	13.46	4.37
	Anger	18.73	4.69	18.06	4.57
	Hostility	23.46	4.45	22.60	4.30
	Aggressive overall score	78.13	19.71	74.93	19.15
Experimental	Academic self-efficacy	32.86	6.89	35.66	7.18
Control	Academic self-efficacy	33.13	7.42	33.66	7.36

Table 2. Results of multivariate analysis of covariance to compare the aggression of the experimental and control groups

Effect	Test	Value	F	Degree of freedom for effect	Degree of freedom for error	P-value
Group	Pulley effect	0.795	20.311	4	21	0.01
	Wilks Lambda	0.205	20.311	4	21	0.01
	Hotelling effect	3.869	20.311	4	21	0.01
	Largest root	3.869	20.311	4	21	0.01

Table 3. Test of inter-subject effects to compare the components of aggression in the experimental and control groups in the post-test

Variable	Source	Sum of Squares	Freedom	Mean of Squares	F	P-value
Physical aggression	Between groups	12.933	1	12.993	16.195	0.01
	Intergroup	19.255	24	0.802		
Verbal aggression	Between groups	7.712	1	7.712	13.096	0.01
	Intergroup	14.133	24	0.589		
Anger	Between groups	14.714	1	14.714	36.662	0.01
	Intergroup	9.632	24	0.401		
Hostility	Between groups	18.452	1	18.452	28.208	0.01
	Intergroup	15.699	24	0.654		

Table 4. Results of analysis of variance to compare students' academic self-efficacy in the experiment and the control group

Source of changes	Sum of Squares	Freedom	Mean of Squares	F- value	P-value
Pre-test	1450.563	1	1450.563	1219.961	0.01
Group	38.560	1	38.560	32.430	0.01
Error	32.104	27	1.189	-	-
Total	1512.667	29	-	-	-

DISCUSSION

The aim of this study was to evaluate the effectiveness of self-encouragement training on reducing aggression and increasing academic self-efficacy of high school students in Tabas. The findings of this study showed that there is a significant difference between the experimental and control groups in the scores related to aggression in the post-test. Based on this, it can be said that self-encouragement training has been effective in reducing the aggression of high school students. The result is consistent with previous similar research[17-20]. Mehman-navazanet al[17] in examining the effectiveness of Schwanker's self-encouragement training based on Adler's theory on cognitive emotion regulation strategies in female-headed households, found that self-encouragement training as a skill increases the use of cognitive strategies of acceptance, positive refocus and positive reassessment as well as reduced use of cognitive strategies of self-blame. Kang et al[19] found that the encouragement program is effective in increasing self-esteem and reducing the feeling of inferiority.

In explaining the above hypothesis, it can be said that encouragement includes all behaviors that make people feel happy, act more effectively in life, and plan more intelligently to solve their problems. Encouragement also builds self-esteem in family members who are an integral part of each other. One of the consequences of encouragement is the sense of belonging which creates in people of the community. This feeling helps a person to feel satisfied that he is devoting himself to the benefit of society, and as a result, there is a high social goal in encouragement in addition to the personal goal. All the results come from the fact that as a result of encouragement, person feels useful, one who is accepted by others and feels capable, and this feeling of power is expressed in a purposeful way, not in the form of aggression[16]. Encouragement is associated with processes such as the spirit of inspiring, raising hope, stimulating and motivating, gradual support. As a result, the person being encouraged prepares to overcome situations full of unhappiness, distress, and sociality that are complexities of current life[21]. Our attitudes in life determine the direction of our movement whether we are moving towards personal interest or fear or towards social interest or encouragement. Discouraged people need to change their way of life and attitudes; Encouragement therefore creates a kind of personal feeling in individuals that the individual stops personal belongings and desires in order to be effective for the welfare and well-being of society and others[16]. As a result, encouragement is shown to reduce aggression.

Another finding of the present study showed that scores related to academic self-efficacy in the post-test were significantly differentbetween the experimental and control groups. Based on this, it can be said that self-encouragement training has been effective in increasing the academic self-efficacy of high school students.This result is consistent with previous studies[22-29]. Salehi et al[22] in the study of student self-efficacy found that self-efficacy is related to encouragement and students' experiences and these factors are also predictors of self-efficacy. Findings of Asali and Salimi-Bejestani[23] show that self-encouragement training reduces exam anxiety and leads to perfectionism of first year high school female students. Alizadeh et al[10] in a study concluded that encouraging education can increase self-efficacy and self-esteem of adolescent girls.

In explaining the above hypothesis, it can be said that encouragement has dimensions that positive attitude and view of self, sense of belonging and courage of imperfection are very important dimensions[30]. Encouragement is a positive feedback that is primarily focused on effort or improvement rather than on outcome, and recognizing, accepting, and transmitting faith to the individual is for the sheer fact that it exists and does not have to be the best to be a perfect human being. He feels valuable regardless of the results which achieves[31]. So this valuable feeling in the person creates the belief that he has potential abilities in the way of achieving his goals that he can realize them, so in the way of achieving the goals, he reaches this attitude that "I can". As a result, the field of self-efficacy increases in all aspects of life, including education.

One of the limitations of the present study was the long time to obtain permission from education to implement the intervention. Also, the limitation of research results to the studied population was another limitation of the present study.

CONCLUSION

Considering the effectiveness of encouragement in reducing aggression and increasing academic self-efficacy, it is recommended that encouragement techniques be taught to students of other educational levels in the form of lessons or workshops. Since encouragement is also partially acquired, it is recommended that these trainings start at an early age. To verify the research results, conduct same research on the opposite sex, and examine gender differences.

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