



Received: 11.01.2019
Received in revised form: 16.06.2019
Accepted: 18.06.2019

Serin, N.B (2019). The Impact of anger management training on anger, aggression and problem-solving skills of primary school students. *International Online Journal of Education and Teaching (IOJET)*,6(3),525-543

<http://iojet.org/index.php/IOJET/article/view/597>

THE IMPACT OF ANGER MANAGEMENT TRAINING ON ANGER, AGGRESSION AND PROBLEM-SOLVING SKILLS OF PRIMARY SCHOOL STUDENTS

Research Article

Nergüz Bulut Serin 

European University of Lefke

nserin@eul.edu.tr

Nergüz Bulut Serin is in European University of Lefke, Department of Guidance and Psychology, Faculty of Education, Lefke, Northern Cyprus TR-10 Mersin, Turkey

Copyright by Informascope. Material published and so copyrighted may not be published elsewhere without the written permission of IOJET.

THE IMPACT OF ANGER MANAGEMENT TRAINING ON ANGER, AGGRESSION AND PROBLEM-SOLVING SKILLS OF PRIMARY SCHOOL STUDENTS

Nergüz Bulut Serin

nserin@eul.edu.tr

Abstract

The purpose of this study was to determine the effect of the group anger management training program on the anger, aggression and problem-solving skills of adolescents. The research is a semi-experimental study based on a pre-test-post-test model with a control group. The study consisted of a total of 36 students, 18 of which were in the experimental group and 18 of which were in the control group. "Anger Inventory for Children", "Aggression Scale" and "Problem Solving Inventory for Children" were used as data collection tools. In terms of the data analysis, the suitability of the data for normal distributions was determined by the one-sample Kolmogorov-Smirnov test, "t-test" was used for the significance of the difference between the score points of the groups and As a result of the research, the students learnt the appropriate expression methods by better understanding the concept of anger. It has been observed that the cognitive-behavioral approach used in the implemented curriculum reduces the anger and aggressive behaviors in favor of male students.

Keywords: Anger Management Training, Anger, Aggression, Problem Solving, Primary school students

1. Introduction

It has been observed that the anger and violence issues in the school are frequently examined both in the scientific literature and in the media. It is known that many children experience anger and this causes problems. According to Marion (1997), physical attacks, verbal conflicts, rejections and complaints have an effect on children's anger at school. Children who do not know how to deal with feelings of anger can suffer from weak and bad relationships such as losing their self-esteem and losing the respect of others (Canbuldu, 2006). The suppression or outburst of emotions depends on various individuals and cultures. For example, children expressing their feelings of anger or love are not accepted by some societies or family members Depressed feelings cannot be completely destroyed. They are expressed in indirect ways by changing the form (Ankay, 1992).

The sensation of anger is actually a natural mood, resulting in an impairment of personal functions as a result of the anger. Anger poses a problem if it is long, intense and excessive and is expressed inappropriately (Hagiliassis, 2005). The direct expression of anger clearly may lead to negative evaluations of others, a negative self-perception, low self-esteem and conflicts in other interpersonal relationships (Balkaya, 2001). Individuals experiencing feelings of anger express behavioural early warning signals. These are changes in voice tone, excitement in the body, intervention in someone else's body, steps up and down (Blum, 2001). In addition, other stimulus signals can also appear in the form of a feeling of firing

everywhere, acceleration of heartbeat, and bending of hands in the form of a punch (Özmen, 2006). Behavioral symptoms such as increasing voice tone, emphasizing certain words, being cut or tongued, repetitive and crying speech can also be seen in the individuals experiencing anger (Kısaç, 1997).

In the conducted research, it was found that violence behaviours that children highly involved beating and student fights (Solak, 2007). According to Gökdaş (2007), the main reasons for the increase in violence in the schools are "deprivation in social values, excessive domestic violence and parental insecurity". A continuous and uncontrolled population movement towards North Cyprus affects the social-cultural structure of the society in a negative way. Particularly after 1974, the economic gap created by the war increases the tension and violence in society (Gürsoy, 2009). Studies conducted to manage anger have proven that anger management techniques help to reduce anger and aggression (Harvey, 2004, Sharp, 2003, Şahin, 2005; Arslan & Adıgüzel, 2018). It has been seen that these studies are mostly carried out by researchers abroad and that there are few studies in our country, especially concerning the anger during the primary school stage. The preparation and implementation of programs for anger management are preventive studies designed to protect the mental health of individuals and society (Şahin, 2005). It is expressed that the prepared anger management programs have general consequences such as conflict resolution, awareness of language use, helping to express anger, emotions and thoughts in language and learning to be aware of verbal and physical anger reactions and their consequences (Korkut, 2004). Anger control or anger management focuses on provocation, physical response to provocation, and proper expression of anger (Şahin, 2005). Various mental health problems such as attention deficit hyperactivity disorder, behavioural disorder, motor depression disorder, and anxiety disorders may occur due to an inadequacy of anger management (Farmer, Compton, Bums & Robertson, 2002). Beck and Fernandez (1998), Cognitive-behavioural techniques and interventions are widely used in studies conducted for anger management (Türk & Hamamcı, 2016). The aggression and empathic tendency levels of the participants were compared in terms of their genders and whether they were doing sports or not (Kırımoglu, Gezer, Deveci, & Gülle, 2016).

In the studies conducted on anger management, it is seen that anger management is based on many factors and different intervention approaches are used in accordance with perspectives. Kellner & Bry (1999) state that anger management training generally involves three stages. The first is to provide information about the cognitive and behavioral components of anger, the second is to teach cognitive and behavioral techniques in anger management, the third is to facilitate the implementation of newly acquired skills such as relaxation exercises, role play and problem-solving. There are some studies in the literature that emphasize the effectiveness of the cognitive behavioural approach in anger management training (Genç 2007; Deffenbacher & Stark, 1992; Smith, Adelman, Nelson, Taylor & Phares, 1994; Kellner & Tutin, 1995; Bilge, 1996; Aytek, 1999; Akgül, 2000; Willner, Jones, Tams. & Green, 2002; Cenkseven, 2003; Bradbury & Clarke, 2005; Howells, Day, Williamson, Bubner, Jauncey, Parker & Heseltine, 2005; Williams, Waymouth, Lipman, Mills & Evans, 2004; Hagiliassis, Gülbenkoğlu, Marco, Young & Hodson, 2005; Kaplan, 2007; Serin & Genç, 2011; Yılmaz 2004; Şen & Aykara, 2018; Yavuzer, (2017). The most important point among the characteristics of anger that researchers emphasize is that it is possible to learn about anger expressions and it is possible to learn the anger expression style which is more appropriate, positive and avoiding aggressive elements instead of having negative anger expressions containing aggressive elements (Balkaya, 2001). Problems that arise from the random release of emotional energy may be encountered. However, the release of the energy of our emotions in a controlled manner, that is to say, education, does not prevent them from being

experienced (Karayörük, 2004). Deffenbacher (2004) found that anger-prone pre-adolescent students were more likely to have decreased the negative anger expressions and to have increased the anger expression management after being taught both the cognitive coping skills and the social skills. İbrahim (2018), the anger subscales of university students were assessed by variables such as age, sex, findings were reached. Bedir (2016), the problems they encountered were assumed to be resulted from lacking in metacognitive knowledge.

It is important to pay attention to the development of aggression as both physical and social development and maturation of children. Aggressive behaviour is first seen in infancy and is mostly instrumental, aggression is different from ruthless and destructive games that begin to develop during this age and continue throughout adolescence (Harvey, 2004). These children, who are more prone to aggression, begin to experience negative emotional behaviours and adaptation problems (Berkowitz, 1993). Another important social context in the development of children is the peer group (Harvey, 2004). Anger is a common feeling associated with aggressive behaviour. Beck has defined anger as a different feeling from aggressive behaviour. Beck argues that the severity of the anger response is determined by means of many cognitive factors such as value judgments, self-esteem and expectations (Lopez & Thurman, 1986). According to Berkowitz, anger as experience does not promote aggression. Rubin (1986) defines anger as the emergence of one or more aggressive schemes through a combination of processes of assessing and coping with danger. According to Kassino and Tafrate (2002), anger and aggression are not synonyms. Some people may carry out physical or verbal aggression reactions when they are angry. According to Anderson (1992), anger is a temporary emotional state and aggression is an attempt to harm another person or object (Şahin, 2005).

Problem-solving is learnt in childhood and problem-solving skills are acquired during school years (Miller & Nunn, 2003). It has been determined that those who perceived themselves as being sufficient in problem-solving had a more enthusiastic, more positive self-perception in terms of interpersonal relationships and exhibited more appropriate working methods and behaviors in terms of the academic perspective (Şahin, Şahin and Heppner, 1993). According to Heppner (1982), problem-solving is synonymous with the concept of coping with problems. In real life, it is expressed as a personal problem solving, carrying out behavioural reactions in line with internal or external aspirations or to adapt to appeals and directing cognitive and emotional processes to a goal. According to Bonner and Rich (1988), an individual's assessment of problem-solving skills influences the individual's problem-solving performance and the process of coping with problems as a cognitive variable. Spence (2003) stated that individuals with effective problem-solving skills are individuals who think independently and creatively, have social competencies and self-confidence, and can tolerate uncertainties (Dow & Mayer, 2004). Before performing problem-solving, individual must accept the problem. The "I did not do anything" thought of the individual delays the resolution of the problem (Raphel, 2003). Since education is considered as a problem-solving process, it is expected that students will be good problem solvers in primary school years. Although problem-solving skills are important, it is not enough to possess the problem-solving skills only (Çelikkaleli & Gündüz, 2010). Academics in Turkey and abroad have stated that schools can eliminate violence and juvenile delinquency and identify risk factors and prepare prevention programs accordingly. Crime prevention programs focus more on the attitudes, beliefs and behaviours of suicidal or criminal children.

Scientific studies in the field of anger management at primary school level in Turkey and the TRNC are considered to be limited. When studies conducted in Turkey and abroad are examined, it is seen that the studies are mostly on adolescents and adults. Very few studies were found at the primary school level. As a result, this study was designed taking

into consideration the significance of the measures to be taken in the first years of primary education and the skills to be gained due to the increasing trends in violence in schools and the lower ages in which these cases are observed. In this context, there was a need for programs to improve the effective coping skills of primary school children in the classroom in relation to anger management.

2. Purpose of the Research

This research has two purposes. The primary purpose of the research is to develop a "Cognitive-Behavioural Education Program" on the cognitive-behaviourism basis for the constructive management of anger and aggression and problem-solving skills seen in the 4th and 5th grades in primary schools of the TRNC Ministry of Education. The second purpose of this research is as follows: It is to measure the effects of the "Anger Management Education Program" on the level of anger, aggression, problem-solving skills of the students in the 4th and 5th grade in primary schools.

2.1. Problem Sentence

Does the "Anger Management Training Program" affect the level of anger, aggression, problem-solving skills of 4th and 5th-grade students in primary school?

2.2. Research Design

1. There is no significant difference between the test and control group anger, aggression, problem-solving, pre-test scores.

2. After the implementation of the "Anger Management Training Program" prepared according to the cognitive behavioural approach, there is a meaningful difference between the experimental group and the control group and the pre-test and post-test scores in the anger, problem-solving levels in favor of the experimental group.

3. After the implementation of the "Anger Management Training Program" prepared according to the cognitive behavioural approach, there is a meaningful difference between the anger, aggression and problem-solving scores of the experimental group in favour of the experimental group.

4. There is a significant difference in the level of anger, aggression, problem-solving of the male and female students who receive the "Anger Management Training Program" prepared according to the cognitive behavioural approach in favour of male students.

3. Methodology

3.1. Research Model

This research is an empirical study based on a split-plot model, based on a model for reducing the anger levels of students (control group, pre-test post-test, follow-up test). A randomized pretest-post-test control group design will be used in this study. As Büyüköztürk (2006) stated, randomized pretest-post-test control group design widely used mixed pattern in which participants are assessed before and after the experimental process in relation to the dependent variable. The independent variable of the study is the "Anger Management Education Program" which is prepared in the cognitive-behavioral sub-structure in order to reduce the level of anger in children and the dependent variables are the anger, aggression and problem-solving scores of the subjects.

3.2. Study Group

Since the study was a practical study, the study group was selected instead of the sample selection. This is because the suitability of sampling in experimental research should be considered as stated by Büyüköztürk (2006). A public primary school in Kyrenia chosen by unselected sampling method from different socio-economic levels, that is to say, lower, middle and upper, was included in the study. The "Children's Inventory of Anger" was applied on the 4th and 5th-grade students study at a primary school within the scope of the research and 36 students were identified with high anger levels. A study group consisting of 1 experimental group and 1 control group consisting of students with anger level was formed (A total of 36 students, 18 students in each of the experimental and control groups). During the formation of the groups, the subjects were matched according to gender, the level of education of the parents, and these subjects were randomly assigned to both groups.

3.3. Data Collection Tools

Children's Inventory of Anger: Children's Inventory of Anger with a Cronbach alpha reliability coefficient of 0.92 developed by Bulut Serin ve Serin (2011) was used. The scale consists of 23 items and aims to determine the anger level of primary school students in 4th, 5th, 6th, 7th and 8th grades.

Aggression Scale: The Aggression Scale was developed by Şahin (2001). The scale consists of 18 items and it aims to determine the level of aggression of the students at the first stage of primary education between the ages of 10-11.

Problem Solving Inventory for Children (PSIC): "Problem Solving Inventory for Children" developed by Serin, Bulut Serin ve Saygılı (2010) is a five-point Likert-type scale consisting of 24 items with three subs-sales and a Cronbach alpha reliability coefficient of 0.83. Problem Solving Inventory for Children is a self-assessment scale that measures the self-perception of an individual's problem-solving skills. The score range is between 24-120. The high level of total scores on the scale indicates that individuals find themselves adequate in problem-solving.

3.4. Data Collection

"Anger management training program in group" was conducted on the experimental group for 8 weeks (2 months) once a week. Sessions lasted were held approximately for 60 minutes and no action was taken on the control group. The implementation of the anger management training program in group was started after the pre-test practice. Individuals in the experimental (9 females, 9 males) and control (8 females, 10 males) groups were balanced according to gender. In addition, it was paid attention to avoid the interaction between the individuals in the experimental and control groups. At the end of the anger management training in group conducted for 8 weeks, the "Anger, Aggression, Problem Solving Inventory" was conducted on the experimental and control groups on the same date.

3.5. Anger Management Training Program:

Purpose of the Programme: The purpose of the Anger Management Training Program is to allow the students define the feelings of anger, have knowledge about the concepts, reasons and results of the statements of this awareness, learn the strategies of coping, develop the anger control skills, and apply the developed skills in daily life.

Content of the Programme: The prepared program contains the topics of the developmental characteristics of the 4th and 5th grade primary school students, communication with the environment and independence, recognition and comprehension of emotions, definition of anger, recognition and comprehension of emotions, asking various

questions about feelings of anger and acquiring detailed information about this feeling by associating with the group, physiological, mental, behavioural reactions of the anger, reasons of anger, understanding the irrational thinking effective in the formation of anger, finding alternative expressions to help us in anger management, communication, information about mistakes made in communication, communication barriers, activities that help to improve communication skills, I-language, the concept of you-language, the comprehension of sociable, aggressive and timid behaviours, comprehension of the difference between sociable, aggressive and timid behaviours, group activities to help develop aggressive behaviours, the importance of problem-solving skills, the sharing of experiences about sessions, sharing of achievements related to anger control and the distribution of certificates. In the program, priority was given to group counselling activities. Attempts have been made to link the homework given to the students with the sessions. "Cognitive Behavioural Approach", "Behavioural Approach", "Rational Emotional Therapy" were used predominantly. The "Anger Management Training Program" is a social skills training that uses cognitive and predominantly behavioural techniques. Within the scope of the training program, techniques such as modelling, behavioural tests, self-monitoring, reinforcement, homework, group guidance activities and training were used. The studies of Erkan (2000), Altınay (2001), Acar (2004), Güloğlu (2006) and Bozdoğan (2004), Genç (2007) and Kaplan (2007) were used in the formation of the anger management training program, in which the effect was researched in the research. First of all, a pilot study was carried out in order to obtain information about the functioning of the program and to make up for its deficiencies in the research. The "Anger Management Training Program" was then formed in its final form.

The anger management training program used in this study is largely based on the cognitive-behavioural approach. Techniques such as relaxation exercises, breathing exercises, homework and feedback were used in the program and it was aimed to reduce the aggressive behaviour by exerting anger management to the experimental group. Programs based on cognitive-behavioural approach are known to be effective in gaining anger management skills.

3.6. Data Analysis

Since the experimental and control group students participated in the study, firstly the equivalence of these groups in terms of dependent variables was investigated and the relationships between pre-test total scores were examined. For this purpose, we use the t-test for unrelated samples on a single factor. The t-test (paired-sample t-test) was used for the related samples in the two groups of the dependent averages in order to determine whether there was any difference between the pre-test and post-test averages of the experimental and control groups (Büyüköztürk, 2006). The level of significance in the study was accepted as 0.05.

4. Findings and Discussion

In the first test of the study, it was expressed as "There is no significant difference between the experimental and control groups in terms of anger, aggression, problem-solving pre-test scores".

The t-test results of the anger, aggression, problem-solving pre-test scores of the experimental and control groups are given in Table 1.

Table 1. *T-test Results of the Experimental and Control Groups Regarding Anger, Aggression, Problem Solving Pre-test Score Averages*

Measurements	Group	N	Average	St. Deviation	sd	t	p
Anger	Experimental	18	49,166	5,659	34	1,948	0,060
	Control	18	45,444	5,802			
Aggression	Experimental	18	29,000	4,158	34	1,312	0,198
	Control	18	31,611	7,349			
PSI	Experimental	18	84,111	15,285	34	1,867	0,201
	Control	18	76,166	9,611			

As shown in Table 1, there was no statistically significant difference between the pre-test score averages of the experimental and control groups. According to this result, it can be said that there is no significant difference between the experimental and control group "Anger, Aggression, Problem Solving Inventory" mean scores. In this case, it can be assumed that the levels of anger, aggression, and problem-solving skills of the experimental and control groups were equal before the experiment.

After the second test of the research "Implementation of the Anger Management Training Program prepared according to the cognitive behavioural approach", there was a significant difference between the pre-test and post-test scores of the experimental group and the control group in the level of anger, aggression and problem-solving skills in favour of the experimental group.

Table 2. *T-test Results of the Experimental and Control Groups Regarding Anger, Aggression, Problem Solving Post-test Score Averages*

Measurements	Group	N	Average	St. Deviation	sd	t	p
Anger	Experimental	18	46.388	7.187	34	0.133	0.895
	Control	18	46.777	10.166			
Aggression	Experimental	18	29.388	5.007	34	1.165	0.252
	Control	18	31.444	5.564			
PSI	Experimental	18	83.333	15.243	34	1.846	0.074
	Control	18	75.055	11.378			

*p<0,05

As shown in Table 2, no statistically significant difference was found between the post-test mean scores of the experimental and control groups. According to this result, it was determined that there was no significant difference between the "Anger, Aggression, Problem Solving Inventory" post-test mean scores of the experiment and control groups at the level of 0.05.

The third test of the study was expressed as "There is a significant difference between the anger, aggression and problem-solving skills scores of the experimental group after the implementation of the Anger Management Training Program prepared according to the cognitive behavioural approach in favour of the experimental group".

Table 3. *T-test Results of the Experimental Group Regarding Anger, Aggression, Problem Solving Pre-test and Post-test Score Averages of the Anger Management Training Program*

Measurements		N	Average	St. Deviation	sd	t	p
Anger	Pre-test	18	49,166	5,659	17	2,193	0,043*
	Post-test	18	46,388	7,187			
Aggression	Pre-test	18	29,000	4.158	17	0.398	0.696
	Post-test	18	29.388	5.007			
PSI	Pre-test	18	84.111	15.285	17	0.143	0.888
	Post-test	18	83.333	15.243			

*p<0,05

As shown in Table 3, it was found that there was a statistically significant decrease in anger levels of the experimental group students after the implementation of the "Anger Management Training Program prepared according to cognitive behavioural approach ($t_{(17)}=2,193$ $p<0,05$). The average scores of the students were =49,166 before the training while that of the group decreased to =46,388 after the anger management training practices. This finding demonstrates that the anger management training program with a group has a significant effect in decreasing the students' levels of anger. It was found out that the anger management training program in group did not have a significant effect on the aggression or problem-solving skills of the students.

Table 4. *T-test Results of the Control Group Regarding Anger, Aggression, Problem Solving Pre-test and Post-test Score Averages of the Anger Management Training Program*

Measurements	N	Average	St. Deviation	sd	t	p	
Anger	Pre-test	18	45.444	5.802	17	0.646	0.527
	Post-test	18	46.777	10.166			
Aggression	Pre-test	18	31.611	7.349	17	0.142	0.889
	Post-test	18	31.444	5.564			
PSI	Pre-test	18	76.166	9.611	17	0.381	0.708
	Post-test	18	75.055	11.378			

*p<0,05

As shown in Table 4, there was no statistically significant difference between the average scores of pretest-post-test anger, aggression and problem-solving skill scores of control group students who did not receive anger management training.

The fourth test of the study was expressed as "There is a significant difference in favour of the male students in terms of anger, aggression, problem-solving skills of the male and female students who received the Anger Management Training Program prepared according to the cognitive behavioural approach.

Table 5. *T-test Results of the Experimental Female Group Regarding Anger, Aggression, Problem Solving Pre-test and Post-test Score Averages of the Anger Management Training Program*

Measurements		N	Average	St. Deviation	sd	t	p
Anger	Pre-test	9	50.000	5.873	8	1.161	0.279
	Post-test	9	47.333	8.573			
Aggressio	Pre-test	9	27.888	3.756	8	0.090	0.931
	Post-test	9	28.000	3.000			
PSI	Pre-test	9	87.222	16.887	8	1.024	0.336
	Post-test	9	79.444	15.289			

*p<0,05

As shown in Table 5, there was no statistically significant difference between the pretest-post-test anger, aggression and problem-solving skills average scores of the female students in the experimental group who received the Anger Management Training Program prepared according to the cognitive behavioural approach.

Table 6. *T-test Results of the Experimental Male Group Regarding Anger, Aggression, Problem Solving Pre-test and Post-test Score Averages of the Anger Management Training Program*

Measurements		N	Average	St. Deviation	sd	t	p
Anger	Pre-test	9	48.333	5.656	8	2.328	0,048*
	Post-test	9	45.444	5.854			
Aggression	Pre-test	9	30.111	4.456	8	0.422	0.684
	Post-test	9	30.777	6.320			
PSI	Pre-test	9	81.000	13.765	8	0.835	0.428
	Post-test	9	87.222	15.031			

*p<0,05

As can be seen from Table 6, it was found that male students of the experimental group who received the Anger Management Training Program prepared according to the cognitive behavioral approach had a statistically significant decrease in anger levels ($t(8) = 2,328$ $p < 0,05$). The average anger score average of the male students was =48,333 while it decreased to =45,444 after the anger management training practices.

5. Conclusion

When the research findings were evaluated in general, the first test of the research was expressed as "there is no significant difference in the anger, aggression and problem-solving pre-test scores between the experimental and control groups". There was no significant difference in the "Anger, Aggression, Problem Solving Scale" mean scores between the experimental and control groups (See Table 1). In this case, it can be assumed that the levels of anger, aggression, and problem-solving skills of the experimental and control groups were equal before the experiment. This result is important in terms of considering that the experimental and control groups are equal to each other in terms of pre-test scores and that there is a minimum of interaction danger due to the selection of the sample group in studies using semi-experimental design (Bulduk, 2003; Genç, 2007; Bulut Serin & Genç, 2011).

The second test of the research was stated as "There is a significant difference in the pre-test and post-test average scores of the experimental and control groups in terms of anger, aggression, problem-solving skills in favour of the experimental group after the Anger

Management Training Program prepared according to the cognitive behavioural approach." After the implementation of the anger management program, there was no statistically significant difference between the post-test score averages of the experimental and control groups (See Table 2). Kaplan (2007) suggests that anger management training programs are effective in reducing students' aggression in the study conducted "anger management skills program impact on aggression and self-esteem levels of 5th-grade students in primary school" (Genç, 2007). According to the results of the study titled "Effects of Anger Management Training in Group on the Continuous Anger Management Levels of 9th Grade High School Students" by Bulut Serin & Genç (2011), the study results of the effect of anger management training on adolescents' anger management skills demonstrated that there was a significant difference in the scores obtained from the continuous anger, internal anger, external anger sub-scales and there was a significant increase the scores of the anger-management sub-scale when the experimental group and the control group were compared at the end of the implemented anger control training program. The results of this study are different.

Williams, Waymouth, Lipman, Mills, & Evans (2004) aimed to evaluate the effectiveness of cognitive-behavioural group therapy in reducing anger and aggression in children in their study. At the end of the study, it was seen that the children stated that their anger intensity was decreased according to the last measurements and that the parents reported that their children had a decrease in the frequency of aggression and hostility behaviours. Sütçü (2006) aimed to evaluate the effectiveness of a cognitive-behavioural intervention program in reducing anger and aggression in adolescents in their study. According to the obtained results, the scores obtained from the sub-scales of continuous anger, outward anger, tendency of children to move and the aggression the by the adolescents in the experimental group from the Continuous Anger and Anger Style Scale and the scores obtained from the Novaco Anger Inventory decreased statistically significantly compared to the control group and the scores of the Continuous Anger and Anger Style Scale anger control sub-scale increased significantly. Şahin (2006) aimed to reveal the effectiveness of anger control program to reduce the aggressive behaviours of the primary school students who are 10-11 years of age. The findings obtained in the research showed that the aggression scores of the students decreased significantly after the training of the experimental group in anger management compared to the control group. The results of this study are different.

The third test of the study stated that there was a significant difference in the anger, aggression, problem-solving skill level scores of the experimental group in favour of the experimental group after receiving the Anger Management Training Program prepared according to the cognitive behavioural approach. It was found that there was a statistically significant decrease in anger levels after the implementation of the Anger Management Training Program (See Table 3). In the experimental study conducted by Cenkseven (2003), significant differences were found between experimental and control groups in terms of continuous anger, outward anger, anger control and aggression scores in favour of the experimental group, with the exception of pre-test and post-test inward anger. Williams et al. (2004) stated at the end of their study that a decrease in the intensity of anger of the children according to the latest measurements. Kaplan (2007) and Genç (2007) found similar results in the study conducted on 5th-grade primary school students. Herrmann (2003) conducted an anger management program for pre-adolescent students. At the end of the program, individual expressions were taken and there was a significant decrease in anger and

aggression and a slight increase in anger management. These findings are parallel to the obtained data. It has been found out that the anger management training program did not have an effect on the aggression and problem-solving ability of the experimental group. There was no statistically significant difference between the average scores of pretest-post-test anger, aggression and problem-solving skill scores of the control group students who did not receive anger management training (See Table 4).

The fourth test of the study stated there is a significant difference in favour of the male students who received the program in terms of the level of anger, aggression, problem-solving skills after the female and male students received the Anger Management Training Program prepared according to the cognitive behavioural approach. There was no statistically significant difference between pretest-post-test anger, aggression and problem-solving skills average scores of female students in the experimental group in which anger management training was implemented (See Table 5). It has been found out that the implementation of anger management training did not have a significant effect on the aggression, problem-solving ability and focus of control of the girls. This study is parallel to the studies of Genç, 2007; Serin, 2006; Bulut Serin and Genç, 2011; Williams et al., (2004). According to the research results, problem-solving skills did not differ between girls and boys (Şeb & Bulut Serin, 2017). The results yield that the creative drama implementation had a substantially positive effect on the students' anger level. Nonetheless (Çapacıoğlu, & Demirtaş, 2017). Anger management training was found to have a statistically significant reduction in anger levels of the male students in the experimental group after the anger management training program (See Table 6). This finding suggests that the implementation of anger management training in group has an important effect in reducing the anger levels of male students. However, it has been determined that the anger management training program does not have a significant effect on the aggression, problem-solving ability and focus of control of male students.

Consequently, students have learned appropriate expression methods by better understanding the concept of anger. These students had cognitive restructuring related to the concept of anger and at the same time, the program changed the behaviours of the students. It has been observed that the cognitive-behavioural approach used in the curriculum implemented reduces the anger and aggressive behaviours in favour of the male students.

The following recommendations can be made considering the results of the research.

1. This research was conducted in a public primary school in Kyrenia in North Cyprus with a limited number of students. It is possible to generalize research data to larger samples by working with different levels of schools and with more students.
2. The scope of the implemented program can be expanded by making the sessions more detailed and increasing the number of activities. In this way, the school can become a guidance study that can be used throughout a semester or a year.
3. The anger management training program used in this study can be applied to students and adults at different levels with a low level of anger management skills or a high level of aggression with some changes that can be made in the context of the program.
4. Monitoring studies can be carried out periodically in order to determine whether the effect of the anger management is permanent.
5. This study was focused on the 4th and 5th-grade students in a primary school. Having considered that the age of primary education is still a game age, it can be assumed

that the activities in the implemented program are both game-based activities and more visual tools are used, the effectiveness of the programs will increase in the group studies at this age .

References

- Akgül, H. (2000). *Anger control training in primary education II. effect of tier students on anger control skills* (Unpublished Master's Thesis). Gazi University. Institute of Educational Sciences, Ankara.
- Ankay, A. (1992). *Mental health and behavior disorders*. Ankara: Turhan Bookstore, Justice Printing.
- Arslan, C., & Adıgüzel, G. (2018). Investigation of university students' aggression levels In terms of empathic tendency, self-compassion and emotional expression. *European Journal of Education Studies*, 5(4) Retrieved from <https://www.oapub.org/edu/index.php/ejes/article/view/1998>
- Aytek, H. (1999). *The effect of group guidance on the control of angry behavior of students in secondary education* (Unpublished Master's Thesis). Çukurova University Institute of Social Sciences.
- Balkaya, F. (2001). Anger: Basic dimensions, causes and results. *Turkish Journal of Psychology*, 4(7), 21-45.
- Bedir, H. (2016). Young adolescent EFL learners' perspectives on critical thinking skills. *International Online Journal of Education and Teaching*, 3(3), 229-238.
- Berkowitz, L. (1990). On the formation and regulation of anger and aggression: A cognitive-neoassociationistic analysis. *American Psychologist*, 45(4), 494-503.
- Berkowitz, L. (1993). *Aggression: Its Causes, Consequences and Control*. New York: Mc Graw- Hill.
- Bilge, F. (1996). *The effects of group and psychological counselors on velocities of university students with speed and cognitive approaches* (Unpublished PhD Thesis).
- Blum, P. (2001). *A teacher's guide to anger management*. London: Routledge Falmer.
- Bradbury, K. E. & Clarke, I. (2005). *Cognitive behavioral therapy for anger management: effectiveness in adult mental health services*. Hampshire Partnership NHS Trust, UK.
- Büyüköztürk, Ş. (2006). *Experimental patterns*. Pegem A Printing, Ankara.
- Bozdoğan, Z. (2004). *Effective teacher training*. Ankara: Nobel Broadcast Distribution.
- Canbuldu, S. (2006). *Adaptation study of the multidimensional school anger inventory* (Unpublished Master's Thesis). Faculty of Education Educational Sciences Psychological Counseling and Guidance. Mersin University Institute of Social Sciences.
- Cenkseven, F. (2003). The effects of anger management skills program on adolescents' anger and aggression levels. *Journal of Educational Sciences and Practice*, 2(4), 153-167.
- Çapacıoğlu, G. K., & Demirtaş, V. Y. (2017). Yaratıcı dramanın öfke denetimi becerilerine etkisi. *İlköğretim Online*, 16(3). Retrieved from <http://ilkogretim-online.org.tr/index.php/io/article/view/2438>
- Çelikkaleli, Ö. & Gündüz, B. (2010). Problem solving skills and competence beliefs in adolescents". Çukurova University Journal of Social Sciences Institute, 19(2), 361-377.
- Deffenbacher, J. L. & Stark R. S. (1992). Relaxation and cognitive-relaxation treatments of general anger. *Journal of Counseling Psychology*, 39(2), 158-167.
- Deffenbacher, J. L. (2004). Anger management programs: Issues and suggestions. (Online): www. behavioral net. from address 4. 07. 2008 It has been downloaded.

- Erkan, S. (2000). *Sample group guidance activities*. Ankara: Pegem Publishing.
- Farmer, E. M. Z., Compton, S. N., Bums, B. J. , Robertson, E. (2002). Review of the evidence base for treatment of childhood psychopathology: Externalizing disorders. *Journal of Consulting and Clinical Psychology, 70*(6), 1267-1302.
- Genç, H. (2007). *The effect of group anger control training on Grade 9 grade students' continuous anger levels* (Unpublished Master Thesis). Dokuz Eylül University, Institute of Educational Sciences, İzmir.
- Gökdaş, I. (2007). *Violence in primary education: Violence and juvenile delinquency in schools* (Ed: Adem Solak). Ankara: Pegem Printing.
- Güloğlu, B. (2006). *The effect of a cognitive behavioral group counseling program on the learned resourcefulness level and automatic thought patterns of elementary school students* (Doctoral Thesis). Orta Doğu Teknik University, Ankara.
- Gürsoy, M (2009). Students' perceptions of violence and violence towards students *TRNC National Education Journal, 3*, 13-30.
- Hagiliassis, N. , Gülbenkoğlu, H. , Marco, D. M. , Young, S. & Hodson, A. (2005). The anger management project: A group intervention for anger in people with physical and multiple disabilities. *Journal of Intellectual & Developmental Disability, 30*(2), 86–96.
- Harvey, J. R. (2004). *The design of an anger management program for elementary school students in a self- contained classroom* (Doctoral dissertation). The State University of New Jersey.
- Hermann, D.S. & McWhirter, J.J. (2003). Anger & aggression management in young adolescents: An experimental validation of the SCARE program. *Education and Treatment of Children, 26*(3), 273-302.
- Howells, K., Day, A., Williamson, P., Bubner, S., Jauncey, S., Parker, A. & Heseltine, K. (2005). Brief anger management programs with offenders: Outcomes and predictors of change. *The Journal of Forensic Psychiatry & Psychology, 16*(2),296 -311.
- Kaplan, A. (2007). *The effect of anger management skills program on the level of aggression and self-esteem of grade 5 students* (Unpublished Master Thesis). Dokuz Eylül University Institute of Educational Sciences, İzmir.
- Kassinove, H. & Tafrate, R. C. (2002). *Anger management*. Impact Publishers. United States of America.
- Kellner, H. M. & Tutin, J. A. (1995). School- based anger-management program for developmentally and emotionally disabled high school Students. *Adolescence, 30*(120), 813-82.
- Kellner, M. H. & Bry, B. H. (1999). The effects of anger management groups in a day school for emotionally disturbed adolescents. *Adolescence, 34*(136), 645-651.
- Kırımoğlu, H., Gezer, E., Deveci, A., & Gülle, M. (2016). An investigation related to the aggression and empathic tendency levels of the university students according to their genders and sport education. *Journal of Human Sciences, 13*(3), 5623-5635.
- Kısaç, İ. (1997). Continuous anger expression levels of university students according to some variables university” (Unpublished PhD Thesis). Hacettepe university Social Sciences Institute,Ankara.
- Korkut F. (2004). *Preventive guidance*. Ankara: Anı Printing

- Lopez, F.G. & Thurman, C.W. (1986). A cognitive- behavioral investigation of anger among college students. *Cognitive Therapy and Research*, 10, 246-353.
- Marion M. (1997). Guiding young children's understanding and management of anger. *Young Children*, 57(7), p. 62-67.
- Miller, M. & Nunn, G.D. (2003). Using group discussion to improve social problem solving and learning. <http://proquest.umi.com/pqdqb? Ord. 22.04.2017>.
- Mitchell, K. L. (2005). The impact of anger management training on students of skills for managing anger (Master Thesis). Duquesne University.
- İbrahim, İ. M. S. (2018). *Irak ve Türkiye'de öğrenim gören üniversite öğrencilerinin öfke ifade tarzları* (Doctoral dissertation). Selçuk Üniversitesi Sağlık Bilimleri Enstitüsü. Retrieved from <http://hdl.handle.net/123456789/14182>
- Özmen, A. (2006). Anger: Theoretical approaches and factors causing anger to occur in individuals. *Ankara University Journal of Faculty of Educational Sciences*, 39(1), 135-144.
- Raphel, M. (2003). Problems solving. <http://proquest.umi.com/pqdqb? Ord.22.04.2017>.
- Sharp, S. R. (2003). *Effectiveness of an anger management training program based on rational emotive behavior theory (rebt). For Middle school students with behavior problems* (PhD Thesis). The University of Tennessee.
- Serin, O. (2006). Examination of problem-solving skills of classroom teachers in terms of various variables. *TED- Journal of Education and Science*, 31(142), 80-88.
- Serin, O., Bulut Serin, N. & Saygılı, G. (2010). Development of problem solving inventory for primary school children. *Primary Online*, (2), 446-458.
- Serin, N.B & Genç, H. (2011). The effect of group anger control training on anger control skills of adolescents. *TED- Journal of Education and Science*, 36(159), 236-254.
- Smith, D. C., Adelman, H. S., Nelson, P., Taylor, L. & Phares, V. (1994). Perceived control at school and problem behaviour and attitudes. *Journal of School Psychology*, 25, 167-176.
- Solak, A. (2007). *Violence and juvenile delinquency in schools* (Ed. Adem Solak). Ankara: Education Publications.
- Stern, S. B. (1999). Anger management in parent and adolescent conflict. *The American Journal of Family Therapy*, 27, 118-127.
- Sütçü, S. T. (2006). Evaluation of the efficacy of a cognitive-behavioral intervention program to reduce anger and aggression in adolescents (Unpublished PhD thesis). Ege University, İzmir.
- Şahin, H. (2005). Theoretical foundations of anger control. *Journal of Faculty of Education*, 6(10), 1-21.
- Şahin, H. (2006). The effect of anger control training on aggressive behaviors observed in children. *Turkish Journal of Psychological Counseling and Guidance*, 26(3), 47-62.
- Şeb, G., & Bulut Serin, N. (2017). KKTC'de satranç eğitimi alan ve almayan ilköğretim ve ortaokul öğrencilerinin problem çözme becerilerine yönelik algıları. *International Journal of New Trends in Arts, Sports & Science Education*, 6(3).

- Şen, B., & Aykara, A. (2018). Comparison of the anger management of the families with visually impaired and mentally retarded children, *Journal of Society and Social Work*, 29 (1), 27-45.
- Türk, F., & Hamamcı, Z. (2016). Evaluation of effectiveness of anger control programs based on cognitive-behavioral approach: A meta-analysis study. *Journal of International Social Research*, 9(43).
- Türkçapar, H. , Güriz, O., Özel, A., Işık, B., Örsel, D. S. (2004). The relationship between anger and depression in patients with antisocial personality disorder. *Turkish Journal of Psychiatry*, 15(2), 119-124.
- Williams, S., Waymouth, M., Lipman, E., Mills, B & Evans, P. (2004). Evaluation of a children's temper-taming program. *The Canadian Journal of Psychiatry*, 49.
- Willner, P., Jones, J., Tams, R. & Green, G. (2002). A randomized controlled trial of the efficacy of a cognitive- behavioural anger management group for clients with learning disabilities, *Journal of Applied Research in Intellectual Disabilities*, 15.
- Yavuzer, Y. (2017). Ergenlerde saldırganlığı azaltmaya yönelik psiko-eğitim programı. *Pegem Atıf İndeksi*, 347-425. Retrieved from <http://www.pegemindex.net/index.php/Pati/article/viewFile/1406/930>
- Yılmaz, N. (2004). *The effects of coping with anger and the effects of group and psychological counselors on adolescents' coping with anger* (Unpublished PhD Thesis). Hacettepe University Institute of Social Sciences, Ankara.