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The Effectiveness of Anger Management Education in College Students Majoring in Sports

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Abstract

This study reports on the actual situation of stress coping among college students majoring in sports and the effectiveness of their educational approach. A performance may decrease for the anger that an athlete cannot control as a background of the problem. In addition, it is demanded that the member of society builds human relations without the harassment, and, as for the university student, a skill of the feelings control is demanded from the society. The subjects were 132 college students majoring in sports and psychosocial studies. Their ages ranged from 19 to 22 years old. The purpose of the study was to "recapture past anger experienced by the self and to build a foundation for improving the performance of that anger in the future. The educational intervention will be conducted a total of five times at 90 minutes per session. The results suggested that the university students' mental health was good, with many sports-related behaviors as stress coping. In order to compare the educational effects, the anger and aggression questionnaire was measured at the beginning of the second session and at the end of the fifth session, and a corresponding t-test was conducted. The results showed a significant increase in post physical aggression over pre ($t=-2.40$, $p<.05$, $df=95$) and a significant increase in "anger" scores ($t=-2.79$, $p<.01$, $df=95$). On the other hand, analysis of the participants' impressions after implementing the ABC column method showed that they were able to reflect on their own anger patterns, the health aspects of anger, and methods of control. When asked to rate the usefulness of the program on a 5-point scale, 79.0% of the participants selected 5 (GOOD) and 4. These results indicate that the educational program approach of this study was effective. Future work will require setting up exercises that can control behavioral aspects related to anger in the long term. The results also suggest that incorporating the exercises in a sports setting may help to link anger to improved sports performance.

Keywords: Anger management education, anger control, anger of college students

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■1.0 INTRODUCTION

The purpose of this study is to report on the educational effects of anger management through a total of five lectures (90 minutes each) to university students. According to the Japan Association for Anger Management (2025), "Anger management is not about getting angry, but about getting better at getting angry at things that need to be sent and getting better at not getting angry where it is not necessary. Novaco (2007) notes that what was originally a personal psychotherapy is now being used as psycho-education, on a school-by-school basis, and is becoming more common in educational settings.

As an example of a sports case in which anger was not controlled, Zinédine Zidane of the French national team was accused of being a "maniac" during the final match of the 2006 FIFA World Cup (Italy vs. France) at the Olympiastadion Berlin on July 9, 2006, when he was accused of being a "maniac" by the Italian national team's The French national team's Zinédine Zidane was sent off for head-butting Marco Materazzi, a member of the Italian national team. As a result, the French national team was defeated, and Zidane lost the opportunity to perform due to anger.

Such anger management is considered one of the stress management skills that should be acquired as a member of society, and is in high demand as an education for university students. In addition, the turnover rate of newly graduated employees after college graduation is increasing, and human relationship problems are said to be one of the major reasons. Examining measures to improve human relationships at work and in daily life is an important issue in preventing young people from leaving their jobs and becoming isolated, and in improving their quality of life (Furumura et al., 2022).

■2.0 LITERATURE REVIEW

Only a few studies have been conducted to educate college students on anger management. In the development of psycho-education for middle school students to promote adaptive coping with anger (Shimoda, 2023), three approaches were used in two sessions: understanding the characteristics of anger and one's own anger, commentary on the adaptive aspects of anger, and understanding anger coping strategies. The results concluded that the learning was novel and useful, but the measurement of anger was not included in the research analysis because it was included in the exercise, and increases or decreases in aggression were not examined.

In the implementation of the anger management program in student counseling, the program was conducted once a week for 90 minutes for four to five weeks for three groups consisting of two to four students. The results showed a deepening of self-understanding, an upward trend in positive attitude and sense of fulfillment, and a downward trend in distrust and overall aggression (Kawamura & kagawa, 2021). In

addition, in a study in which a psychoeducational program on anger management focused on unfair anger was conducted with 15 university students, the results showed significant positive improvements in “comfort,” “healthy struggle,” and “simple comfort” (Onodera & Miyazaki, 2024). These studies have only shown educational effects on small groups of college students.

■3.0 OBJECTIVE

In light of these studies, it is suggested that the effectiveness of anger management education for large groups has not been examined and that aggression must be assessed during exercise in order to evaluate its educational effectiveness.

This study will examine the effectiveness of conducting an anger management program for college students majoring in sports in a lecture format with over 100 students.

An anger management program will be created for students majoring in sports. The purpose of the study is that this group of college students majoring in sports and psychosociology will be targeted to improve their performance by appropriately understanding and handling anger in sporting situations. In addition, the goal was set as follows: “The subjects in the study have been engaged in sports due to their fear of anger from their coaches. By recapturing past anger experienced by the self, we will build a foundation for how that anger can improve performance in the future”. To achieve this goal, five 90-minute sessions will be conducted per session.

Based on the data obtained through these practices, the specific stress coping tendencies of students majoring in sports will be clarified, and the effectiveness of anger management education through self-description will be examined through lecture and workbook formats.

■4.0 METHODOLOGY

4.1 Research Design And Subjects

A single pre-post research design is a type of study design used to evaluate the effectiveness of an intervention by comparing results measured before and after an intervention. This design is particularly useful when a randomized controlled trial (RCT) is not feasible or ethical. The pre-test provides necessary information about where participants started, enabling researchers to examine how participant performance changed as a result of the intervention. The post-test measures the changes in performance, and the changes in scores from pre-test to post-test are interpreted to reflect the effectiveness of the program. The question paper to measure anger carried out anger, the aggressiveness question vote (Nakano, 2001). And I performed pretest to the second. And I performed a post-test to the fifth (the last inning). I compared this score and confirmed an effect of the intervention.

It recruited the participants from the student who chose "the human relations" that were an elective subject allotted for 2-4 years. The sampling strategy is the whole student who agreed to study entry.

The subjects of this study were 132 university students. The college students are characterized as being in their second to fourth year of studying sports and sociology and psychology. Their ages ranged from 19 to 22 years. The educational intervention on anger management would be conducted a total of 5 times for 90 minutes per session. The number of participants in each session is 132 for the first session, 115 for the second session, 122 for the third session, 126 for the fourth session, and 130 for the fifth session. The number of participants who took the aggression evaluation measurement was 96.

4.2 Contents Of The Anger Management Program In This Study

In this study, the program construction was based on Furr's (2000) step-model psychoeducational framework. The program construction is shown in Table 1. Five goals were set for each of the five total implementations.

Table 1 Program construction details

Step 1 Declaration of Purpose	This group of college students majoring in sport and psychosociology aims to improve performance by appropriately understanding and handling anger in sporting situations.
Step 2 Determination of Final Goal	The study subjects have been engaged in sports due to their fear of anger from their coaches. By recapturing past anger experienced by the self, we will build a foundation for how that anger can improve performance in the future.
Step 3 Establish Objects	**<Objective 1>**To understand what is lost through anger and how anger management can be effective in improving sports performance (Part 1). **<Objective 2>**Understand misconceptions about anger and understand one's own state of anger (Part 2). **<Objective 3>**To understand the mechanism of anger. Reflect on the process by which one's anger arises (Part 3). **<Objective 4>**To learn how to deal with anger immediately (Part 4). **<Objective 5>**To learn how to develop a tolerance for anger (Part 5).
Step 4 Content Selection	**<Contents of Goal 1>**(1) The cost of anger (2) Necessity of anger management **<Contents of Goal 2>**(3) The image of a cup (4) Causes of anger (5)Myths about anger management (6)Manifestations of Anger (7) Core Beliefs that cause anger **<Contents of Goal 3>**(8)Two Thoughts (9)Count Back (10)ABC Column Method of Controlling Anger (11)Chain of Anger (12)Anger and Aerobic Exercise **<Contents of Goal 4>**(13)Breathing Relaxation(14)Stop Thinking(15)Grounding (16)Time Out(17)Coping Mantra(18)Play Roll(19)Assertive communication(20) Body Relaxation(21) Break pattern **<Contents of Goal 5>**(22)Anger Log(23)Scale Technique(24)Externalizing(25) Positive Moments(26)Success Log(27)Image Relaxation(28)Distraction Log (29) Stress/Anxiety Log
Step 5 Design Exercise	**<Goal 1 Exercise>** Describe a time when you were destroyed by anger.What were the times when you became aggressive? What were the times when you became aggressive? Do you want to change in order to control your anger? **<Goal 2 Exercise>** Myths about anger management. Anger Questionnaire (Physical Aggression / Verbal Aggression / Anger / Hostility) **<Goal 3 Exercise>** What is your original countback? Please write down the events that made you angry (A) using only objective facts. How did the outcome (C) make you react? What are your beliefs and thoughts (B) behind your anger?

	What is your own pattern of anger? Please describe your feelings and opinions after taking this class (about 200 words). **<Goal 4 Exercise>** What are the words you use to stop? What is your image of stopping? When do you stop? What are some of the things you focus on when grounding? What is your coping mantra that you use when you get frustrated? Who do you want to be in your play-role? Who do you admire in your play-role? Who is your ideal person in your play-role? What type of exercise do you do on a regular basis? How much time do you spend exercising per day? How many days per week do you exercise? When do you exercise? What is your plan for doing different things in a break pattern? **<Goal 5 Exercise>** Keep an anger log. Quantify your anger with the Scale Technique. Visualize with Externals Rising Positive Moments to recall positive events. Write down your successes with the Success Log. Visualize a relaxing image in your mind. Self-analysis for stress relief Know your own perfectionism (high standards, orderliness, discrepancies between behavior and standards).
Step 6 Evaluation	Anger and Aggression Questionnaire (Nakano, 2001) will be administered at the 2nd and 5th sessions.

*A total of 31 types of content have been implemented. Specific procedures for each are described below.

(1) The Cost of Anger; This content will teach about the various problems that can be lost to anger (loss of relationships, aggression becoming violent, increased probability of heart disease).
(2) Necessity of anger management; Learn that anger management is not about putting up with anger. Understand that mastery of the skill requires continuous effort.
(3) Image of a cup; When stress builds up, imagine a cup filled with water. When that water overflows, anger explodes.
(4) Causes of anger; Learn that the cause of anger is stress and the damage done to one's desires and beliefs.
(5) Myths about anger management; Ask whether the five ways of handling anger are right or wrong. These processing methods are generally said to be effective. However, we will learn that they are not.
(6) How anger manifests itself.; Learn that anger is problematic when it is frequent, intense, persistent, and accompanied by aggression.
(7) Core Beliefs that cause anger; Learn that excessive moral, selfishness, self-esteem, attachment, and vigilance can cause anger.
(8) Two Thoughts; Humans have fast and slow thoughts, with fast thoughts producing emotions and slow thoughts making logical judgments. When people are influenced by emotions early on, they are unable to make calm decisions and problems arise.
(9) Count back; A method to wait 6 seconds before reacting in order to avoid being influenced by fast thoughts.
(10) ABC column method to control anger; Using a worksheet, understand the process of B judgment that connects A events and C consequences, and learn the characteristics of your anger.
(11) Chain of anger; Learn that anger tends to chain together.
(12) Anger and aerobic exercise; Learn that anger can be relieved through sports and physical exercise.
(13) Breathing Relaxation; Methods that can calm the feelings of anger through breathing.
(14) Stop Thinking; A method that uses mantras to force you to stop thoughts that create anger.
(15) Grounding; A method that allows you to leave the feeling of anger by staring at a watch, ring, or phone in your hand.
(16) Time Out; A method to take a break and calm down when the object of anger is in front of you during an argument.
(17) Coping Mantra; A method of chanting a mantra in the mind to suppress anger when it rises.
(18) Playroll; This is a method of thinking about how to cope with anger by assuming the role of someone you admire, want to be, or respect.
(19) Assertive Communication; The method of win-win communication.
(20) Body Relaxation; A method to calm down anger by relaxing the body.
(21) Break pattern; A method to notice new ways of thinking by doing something different from the usual instead of doing the usual routine.
(22) Anger Log; A method of keeping a record of good events. By keeping a record, we can see patterns of anger.
(23) Scale Technique; Also called an anger thermometer. It is a method to evaluate the degree of anger on a scale of 0 to 10 to visualize and objectively view anger.
(24) Externalizing; Externalize the invisible anger of emotions. Visualize anger from the inside to the outside by drawing pictures or creating a fiscal year.
(25) Positive Moments; A method of distancing oneself from feelings of anger by remembering events that were good for one's self.
(26) Success Log; A method of distancing oneself from feelings of anger by recalling successful experiences.
(27) Image Relaxation; A method of relaxing yourself by conjuring up relaxing images in your mind.
(28) Distraction log; A method of writing down as many distraction methods as possible and practicing those methods.
(29) Stress/Anxiety Log; Record events that make you feel stressed or anxious. By recording, learn about your stress and anxiety tendencies.
(30) Should log; The perception that you should is stressful. Understanding this perception is a method to prevent you from falling into that thinking.
(31) Pushing Perfectionism; Imposing values on others creates feelings of anger. Methods to control anger by becoming aware of the beliefs you are trying to impose on them.

4.3 Coping Characteristics Of Students Majoring In Sports

In this study, we will identify coping characteristics of college students majoring in sports by organizing the various data obtained from the exercise. Specifically, we will examine (1) what is destroyed by anger, (2) whether they want to change themselves through anger management, (3) the percentage of correct answers to myths about anger, (4) words to stop, (5) what is targeted by grounding, (6) students' exercise habits (hours per day, days per week, time of day when they do it), and (7) distracting behaviors, a total of seven items were included in the survey.

4.4 Pre- And Post-Evaluation Scales And Educational Effectiveness

In this study, the Anger and Aggression Questionnaire (Nakano, 2001) was used. In order to compare the educational effects of the program, it will be administered at the beginning of the second session and at the end of the fifth session. Corresponding t-tests will be conducted to examine the effectiveness of this program.

In addition, “About the changes made by the ABC column method” conducted at the 3rd session, data from free-response statements are examined for their validity by means of co-occurrence networks in morphological analysis. Finally, we present the results of the fifth survey, in which respondents were asked on a 5-point scale how useful this program is.

4.5 Ethical Considerations

In this study, ethical considerations included the following: (1) participants could become research collaborators on a voluntary basis; (2) the research data obtained would be processed as a whole, with personally identifiable information deleted, so that individuals would not be identified; and (3) if a research subject wished to withdraw, a contact point would be set up for the subject to make a request, (3) If a subject wishes to withdraw from the study, a contact point will be set up and the subject will be dealt with promptly. No subject offered to withdraw from the study. As an ethical consideration, the experimental group and the target group were not set in this study in order to avoid creating differences in educational effects among participants.

■5.0 RESULTS

5.1 On The Tendency Of College Students To Coping With Stress

5.1.1 About What Is Destroyed By Anger

Descriptive statistics are different word counts n=434, with a mean of 2.57 for the number of occurrences and a standard deviation of 5.75. The number of occurrences was scored by Term Extract in detecting compound words, and the results are shown in Table 2.

Table 2 Destroyed by anger

Rank	Compound word	Score
1	Relationships	113.66
2	Friendship	59.11
3	Trust	25.40
4	Club Activities	10.64
5	Friendship	8.54
6	Gaming	6.34
7	Part-time job	6.00
8	1 person	4.00
9	2 people	4.00
10	Guilt	3.94
11	Deterioration of relationship	3.86
12	Friendship	3.86
13	Relationships	3.86
14	Differential Relationship	3.86
15	Academic Year	3.46
16	Matches	3.46
17	Table Tennis Club	2.34
18	1 person	2.00
19	Laundry	1.78
20	Closeness	1.78
21	Sense of unity	1.78

5.1.2 On Whether They Would Like To Change Themselves Through Anger Management

Regarding whether they would like to change themselves through anger management, 118 (89.4%) of the 132 respondents selected “yes,” 2 (1.5%) selected “no,” and 12 (9.1%) selected “don't know yet.

5.1.3 Correctness Of Myths About Anger

Ellis & Tafrate (1998) discuss five myths about anger processing. They point out that all of these seem to be correct at first glance, but are wrong when viewed skeptically. Therefore, in the third session, participants were asked to choose whether these questions were correct or incorrect. There were 130 respondents. The choice for Myth 1, “Expressing anger decreases anger,” was 66 (50.8%) correct and 64 (49.2%) incorrect. The choice of Myth 2 “Time out when it happens” was 98 (73.7%) correct and 35 (26.3%) incorrect. The choice of Myth 3, “Anger makes you earn what you want,” was right 8 (6.2%) and wrong 122 (93.8%). The choice for Myth 4, “Insight into the past decreases anger,” was 67 (51.5%) correct and 63 (48.5%) wrong. The choice for Myth 5, “Events in the outside world make you angry,” was 83 (63.8%) correct and 47 (36.2%) incorrect. These results are shown in Figure 1.

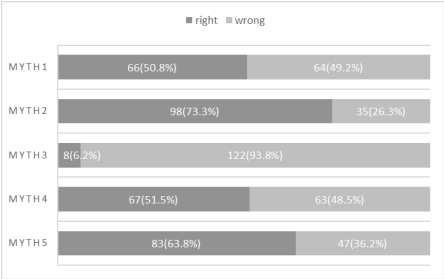

Figure 1 Myths about anger management

Note: Myth 1: “Expressing anger decreases anger. ”Myth 2: “When it happens, it's time out” Myth 3: “Anger will make you get what you want.” Myth 4: “Insight into the Past Diminishes Anger” Myth 5: “External Events Make You Angry”

5.1.4 Words To Stop And Grounding Target

Table 3 shows the number of occurrences of the extracted words for the results of the question “Words to stop anger.” Descriptive statistics show that the number of overlapping words n was 102, the mean of the number of occurrences was 2.03, and the standard deviation was 3.01. Table 4 shows the number of occurrences of the extracted words for the results of the question, “What do you look for at hand to stop anger?” Descriptive statistics show that the number of overlapping words n is 957, the mean of the number of occurrences is 50.5, and the standard deviation is 16.77.

Table 3 Words to stop

Rank	Extracted word	Number of Occurences
1	calm down	29
2	STOP (ENG)	10
3	Stop（とまれ; JPN	10
4	get angry	7
5	pause	4
6	end	4
7	Finish	4
8	Yes	3
9	No	3
10	Family	3
11	Fun	3
12	Thinking	3
13	Now	3
14	Focus	3
15	Calm	3
16	oh!	2
17	Right	2
18	Patience	2
19	self	2
20	I'm okay	2
21	I can calm down	2

Table 4 Grounding Objectives

Rank	Extracted word	Number of Occurences
1	Smartphones	60
2	Clock	19
3	Myself	15
4	Pen	12
5	Nails	10
6	Empty	7
7	Book	7
8	Cell phone	6
9	Scenery	6
10	Scratches	6
11	Necklace	5

5.1.5 Exercise Frequency

The results of the question about the hours of exercise per day are shown in table 5. Table 6 shows the results of the question about the number of days per week that the respondents exercise. The results of the question about the time of day they exercise are shown in table 7.

Table 5 Exercise hours per day

Hours	n	%
0	3	2.4
1	39	31.2
2	44	35.2
3	24	19.2
4	11	8.8
5	4	3.2
6	0	0
total	125	100

Table 6 Number of days to exercise per week

Days per week	n	%
0	1	0.8
1	11	8.7
2	22	17.5
3	23	18.3
4	11	8.7
5	14	11.1
6	33	26.2
7	11	8.7
total	126	100.0

Table 7 Time of Day for Exercise

Time	Select	%
5:00 – 9:00	26	10.5
9:00 – 12:00	38	15.3
12:00 – 13:00	9	3.6
13:00 – 16:00	28	11.3
16:00 – 19:00	77	31.0
19:00 – 22:00	52	21.0
22:00 -	18	7.3
Total	248	100.0

5.1.6 Distractive Behaviors That Are Performed To Relieve Stress

Table 8 shows the results of the scores calculated by Term Extract in detecting compound words for the number of occurrences for the results of writing down as many distractor behaviors that are done to relieve stress as possible. The descriptive statistics are: the number of different words n is 957, the meaning of the number of occurrences is 5.05, and the standard deviation is 16.77.

Table 8 Distraction Method

Rank	Compound word	Score
1	Muscle training	242.67
2	Watching movies	38.72
3	Watching sports	34.85
4	After taking a bath	23.55
5	Alone	20.13
6	Watching a game	10.67
7	Tokai On Air (Youtuber)	8.94
8	Decommissioning of a house	7.56
9	Chest training	7.24
10	Iekei Ramen (Yokohama Ramen)	7.14
11	Watching anime	7.07
12	Shoulder training	6.74
13	Back training	6.74
14	Arm training	6.74
15	Secondhand clothes shop	6.64
16	Beauty salon	6.64
17	Soccer games	6.62
18	Cold shower	6.34
19	Net surfing	6.00
20	Genshin Impact (原神)	6.00
21	Masturbating	6.00
22	Tidying up	6.00
23	Shopping mall	4.12
24	Beauty parlor	4.12
25	Comic books	4.12

5.2 Effectiveness Of Anger Management Education

5.2.1 Comparison Of Anger Questionnaire Scores

To examine changes in aggression, an anger questionnaire was administered at the beginning of the second session and at the end of the fifth session. The differences in the scores were analyzed with a corresponding t-test. The number of subjects was n=96 (df=95) by using a paired t-test. The results are shown in Table 9.

Table 9 Test of Means and Differences for Corresponding Samples

		Mean	Standard deviation	Standard error of the mean	Pre-Post	Frequency	Standard deviation	t	Both side p-value
pair1	Physical Aggression Scores Pre	21.56	6.99	0.71	-1.64	6.69	0.68	-2.40	0.02
	Physical Aggression Score Post	23.20	7.27	0.74					
pair2	Verbal aggression score Pre	12.60	3.58	0.37	0.16	3.93	0.40	0.39	0.70
	Verbal aggression score Post	12.45	4.02	0.41					
pair3	Anger scores Pre	15.93	5.25	0.54	-1.44	5.05	0.52	-2.79	0.01
	Anger scores Post	17.36	5.25	0.54					
pair4	Hostility scores Pre	18.39	6.30	0.64	0.01	5.66	0.58	0.02	0.99
	Hostility scores Post	18.38	6.14	0.63					

5.2.2 Changes Made By The Abc Column Method

The ABC column method was implemented, followed by the question 'What is your own pattern of anger? Please describe your feelings and opinions after this lesson (about 200 words)', a co-occurrence network analysis (aggregation unit: H5, co-occurrence relationship: Jaccard) using KH Coder (Ver. 3.Bata.01g; Higuchi,2016) was conducted on the free-response statements obtained by teaching. The results

of the calculated co-occurrence networks are shown in Figure 2. The descriptive statistics are: number of different words n = 1028, mean number of occurrences 5.37, standard deviation 21.05.

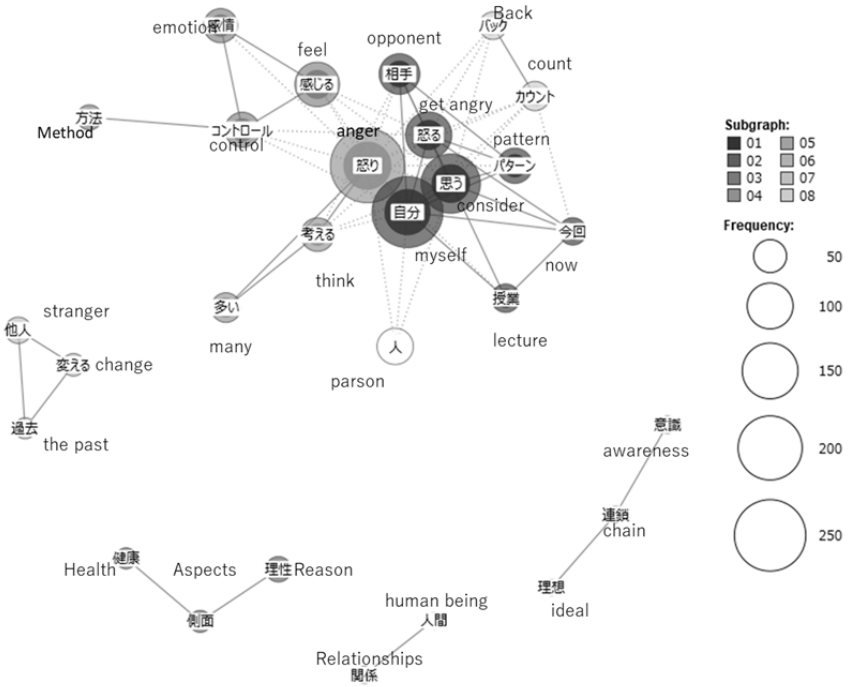

Figure 2 Co-occurrence network (aggregation unit: H5, co-occurrence relation: Jaccard)

5.2.3 Evaluation Of The Usefulness Of This Program

This question was asked immediately after all programs were completed, asking participants to rate on a 5-point scale whether the program would be useful to them in the future. Table 10 shows the percentage who found it useful. 80% of respondents choose 4 and 5.

Table 10 The percentage who found it useful

	Count	%
1/poor	0	0
2	6	4.7
3	21	16.3
4	51	39.5
5/good	5	39.5
total	129	100.0

■6.0 DISCUSSION AND RECOMMENDATION

6.1 Anger Management Characteristics Of College Students

6.1.1 Destroyed In Anger

Relationships were the first, third, and fifth most common things destroyed by anger among Japanese university students. Fourth place was club activities, and seventh place was part-time jobs, which were related to places. And sixth were game consoles and things related to things. Other references were to psychological sensations such as guilt, closeness, and togetherness. Ellis & Tafrate (1998) stated, “The cost of anger is terrible, and it is probably the worst, as anger ruins interpersonal relationships. This confirms previous studies that anger is more likely to be directed toward those who know better. Also, the fourth most common activity was club activities, indicating that for students majoring in sports, it also destroys the community in which they must perform. Takamura (2013), the third most common concern of college students is friendships, and “small groups formed in the early years of school may be replaced later, but the foundations of groups formed in the early years are not easily destroyed”. risk destroying the environment in which they engage in sports.

6.1.2 Strategies To Stop

The most common word was “calm down”. Also, many simply “stop,” “pause,” “finish,” or “end” to stop. The fourth most common word was “get angry,” which is actually “Don't get angry” because the negative is omitted. From the above, it can be said that the word for stop is to calm the mind, and short and simple ones were selected.

The most common items of interest for grounding were familiar objects such as smartphones, watches, and pens. These were things that they would see during their study. These may have been influenced by the fact that the exercise instructs participants to look for familiar objects in the lecture. On the other hand, some of them focused on internal and external sensations, such as themselves, emptiness, and scenery, etc. Wulf (2007) classified the location of attention during exercise and sports into two categories: “internal focus of attention” and “external focus of attention”, A comparison of the two suggests that external focus is effective for motor skill learning and performance. These can be said to be an approach to improve learning performance by communicating external focus of attention as one of the coping strategies in non-learning environments, such as in sports situations.

6.1.3 Habits Through Exercise

The results of this study show that most students spend up to 2 hours per day, followed by up to 1 hour per day, which means that many students spend a lot of time exercising. In terms of the number of days per week that they exercise, many of them make exercise a habit, such as by participating in clubs and club activities. The most common time of day for exercise was in the evening, followed by nighttime. Some also exercise in the morning. Thus, it can be seen that many students majoring in sports make exercise a habit. The effect of exercise on mental health was summarized by the International Society of Sport Psychology (1992). That is, (1) exercise reduces anxiety states, (2) it reduces mild to moderate levels of depression, and (3) long-term exercise reduces neurosis and anxiety. Students with exercise habits are expected to have healthier mental health. However, its effectiveness on interpersonal relationships has not been demonstrated, and further study of its relationship with anger is warranted.

As a result of this study, the largest number of students do muscle training (shoulder training, back training, and arm training). This was followed by watching movies, sports, and anime. On the other hand, general distracting behaviors such as eating and shopping were less common. The International Society of Sport Psychology (1992) has described the mental health benefits of exercise as reducing various types of stress and having an emotional effect on people of all ages and genders. For students majoring in sports, it was also evident that many of them performed stress-reducing behaviors by engaging in physical activity when they felt stressed.

6.2 The Effectiveness Of Anger Management Education

6.2.1 Myths About Anger Management

We have highlighted five myths about anger processing by Ellis & Tafrate (1998), all of which are considered wrong. Many people chose “wrong” for myth 3, “Anger makes you acquire what you want”. In the first session, I lectured the participants that anger makes you lose many things. The effect of that education is likely to be evident. The other myths are that many people are misunderstood, as many choose “right,” and Ellis & Tafrate (1998) point out that these five myths are the ones that appear most often in our clients who seek help with anger problems. Many college students majoring in sports were also shown to have many misconceptions about anger management.

6.2.2 Changes By Abc Column Method

The following are the results obtained by co-occurrence network analysis of the ABC column method (Ellis & Tafrate, 1998) of Rational Emotive Behavior Therapy (REBT) and the subsequent free descriptions The ABC column method is a method of breaking down anger situations into (A) difficult events, (B) belief systems, and (C) emotional By breaking down the situation into three processes, (A) the result, (B) the belief system that causes the anger, and (C) the emotion, the method allows us to objectively see ourselves as affected by the belief system and to know the pattern of anger. When analyzing the impressions obtained from knowing the patterns of anger, Subgraph 1 showed that “I” and “think” were the largest descriptions, and “the other person,” “angry,” and “pattern” were the most common descriptions indicated by free descriptions. KWIC concordance analysis showed that the word “pattern” was followed by the word “my” as the most common description. Statements about their original patterns were frequently found. Subgraph 2 consists of “aspects” connecting “health” and “reason,” and the free descriptions indicate that they were able to self-analyze these “aspects,” with the “unhealthy/healthy” aspect of anger and the “reason/irrationality” aspect of anger. The results indicate that the participants were able to analyze the results; Ellis & Tafrate (1998) point out the rational and irrational aspects of anger, and that an important perspective is the need to focus specifically on changing the belief system in order to effectively change emotions and behaviors. This exercise has had an educational effect because it has made us aware of these perspectives; Subgraph 3 is structured as “how” to “feel” and “control” “emotions”; Subgraph 4 is tied to “anger” and the axis “think” and “much”; Subgraph 5 is tied to “anger” and the axis “think” and “much”; and Subgraph 6 is tied to “anger” and the axis “think” and “much”, opportunity to think about anger. Taken together, these results suggest that the ABC column method provided an opportunity to think about patterns of anger and to reflect on the healthy/non-healthy aspects of that anger and the meaning of anger.

6.2.3 Changes In Anger Tendency Due To Educational Programs

This is a comparison of anger scores as measured by the Anger Survey Paper (Nakano, 2001). This survey was measured in the second session for pre and in the fifth session for post. The results showed no change in “verbal aggression” and “hostility”. On the other hand, the SCORE for “Physical Aggression” and “Anger” increased significantly. This result did not result in a decrease in aggression by anger management. Kawamura & Kagawa (2021) investigated changes in aggression similar to the present study in a study in which anger management was implemented in student counseling. They reported that the mean values of “temper,” “hostility,” and “physical aggression”

decreased and the mean value of "verbal aggression" increased, although the results were not statistically examined due to the small number of subjects. The results of this study provide a new and thought-provoking perspective by comparing the results of these studies.

A possible implication of the results of this study is that "physical aggression" and "anger" were lower compared to the post scores after the "what you lose in aggression" lecture in the first session. These items are the most discouraged items for anger management. The results of the immediate post-measurement were lower compared to the post scores, indicating its educational effect. However, at the end of anger management, those scores are significantly increased. In other words, it can be interpreted that the educational effect was lost in a short period of time (after 3 weeks). It is believed that anger management needs to be devised in some way in order to be effective in the long term.

Another problem with this study is that aggression before anger management could not be measured. Because the measurement of aggression was included in the second exercise, "Know Your Anger," the initial values could not be ascertained. To avoid these problems, it is necessary to conduct a pretest before conducting anger management.

6.2.4 Evaluation Of The Usefulness Of This Program

The results of the question regarding "Was anger management helpful?" The results of the question regarding "Was the anger management program useful?" were evaluated as 79.0% of the respondents chose 4 if 5 (good), which means that many of them felt that this program was useful and that this anger management program was meaningful to the target population. However, since this program was evaluated by the author, a researcher, there is a possibility of bias in the results.

■7.0 CONCLUSION

This study investigated the actual state of stress coping among college students majoring in sports and the effects of anger management education. It was found that the actual stress management practices of college students majoring in sports emphasized sports-related content. Since the college students were majoring in sports, their stress relief was muscle training, practicing/watching sports, etc. Another characteristic of many of the students was that they had an exercise habit. Although not evident in this study, it is presumed that this is a group with a high level of mental health. Future research issues will need to examine the assessment of students' mental health and the extent to which there is a difference in stress and anger between those who exercise and those who do not.

Regarding the effectiveness of anger management education, it was not possible to evaluate each of the 21 approaches and determine their effectiveness. However, 79.0% of the students rated the program as helpful, and for some individual exercises, the educational effect was sufficiently evident for the "Myths about Anger" and "ABC Column Method". However, this effect was limited to general anger management. As for the initially set goal, "to build a foundation for future performance improvement by reevaluating one's own past anger experiences," the data did not show whether it was effective in improving performance, although it did motivate the participants to engage in anger management. However, the data did not indicate whether it was effective in improving performance. In the future, it will be necessary to construct new exercises, such as imagining sports situations.

In addition, the aggression score increased after the exercise. This means that the state of anger returned to normal. Essentially, the educational effect is that the implementation of anger management should maintain the state of decreasing aggression scores in the long term. It would be necessary to set up exercises that could control aggression (especially the "behavioral aspects related to anger") over the long term. In addition, the current study did not measure aggression prior to receiving anger management. It would need to be measured prior to implementation to ascertain its change as a baseline. For students majoring in sports, the incorporation of exercises in sports situations may help to link anger to specific performance improvements. Development of these programs is a future challenge.

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Conflicts of Interest

The author(s) declare(s) that there is no conflict of interest regarding the publication of this paper

References

Albert Ellis, & Raymond Chip Tafrate. (1998) *How To Control Your Anger Before It Controls You*, Carol Publishing Group.

Furr, S.R. (2000). Structuring the group experience: A format for designing psychoeducational groups. *Journal for Specialists in Group Work,* 25(1), 29—49.

Furumura, Y. (2022) Construction of communication education mainly based on anger management and verification of its effect on brain science. *JSPS Grant-in-Aid for Scientific Research* (C) 22K02267

International Society of Sport Psychology (1992). Physical activity and psychological benefits: A position statement from the international societyof sport psychology *Journal of Applied Sport Psychology,* 4, 94-98.

Japan Anger Management Association (2025) What Is Anger Management? https://www.angermanagement.co.jp/about Retrieved o 3 April 2025

Kawamura, Hitomi & Kagawa, Kaoru (2021) *Practice of Anger Management Program in Student Counseling Bulletin of the Center for Clinical Psychology*, Kansai University,12,15-23

Koichi Higuchi (2016) "A Two-Step Approach to Quantitative Content Analysis: KH Coder Tutorial Using Anne of Green Gables (Part I)" *Ritsumeikan Social Science Review*, 52(3): 77-91

Nakano K. (2016). *Introduction to Stress Management [2nd Edition]: Learning Self-Diagnosis and Coping Method*s" Kongo Publishing Co.

Nakano, K (2001) Psychometric evaluation on the Japanese adaptation of the Aggression Questionnaire. *Behavior Research and Therapy incorporating Behavior Assessment*, 39 853-858.

Novaco, R.W.(2007). *Anger dysregulation, in Angar, Aggression, and Interventions for Interpersonal Violence.* Rotledge.

Onodera, K. and Miyazaki, K. (2024) Development and Effectiveness of an Anger Management Psychoeducation Program Focusing on Anger toward Unfairness. *Atomi Gakuen Women's University Affiliated Psychoeducational Counseling Center Minute*s 20, 29-40.

Takamura, S. (2013). M*ental Health of College Students - Failure to Create Companionship, Mental Health Measures for High School and College Students - What Schools and Families Can Do*?Seikyusya.

Wulf, G. (2007). *Attention and motor skill learning*. Human Kinetics.