

Effect of Psychomotricity by the Adolescent on the Anger Management of Convergence

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Abstract

Background/Objectives: In maladjustment problems of adolescence, due to developmental characteristics of adolescence in 'a storm and stress' and the lack of opportunity to practice how to recognize their own feelings accurately and cope with them efficiently, the adolescent reveal the social maladaptive behavior, aggressive behavior or delinquent behavior such as juvenile delinquency, school violence and running away from home, which is an outward expressed form but the underlying cause is anger. **Methods/Statistical analysis:** This study aims to evaluate the effect of psychomotricity by the adolescent on the anger. Total 20 subjects of elementary school students (grades 5-6) were divided into the experimental group (of 10) and the control group (of 10). During the total 18 weeks, the psychomotor program was carried out for 16 weeks, excluding two weeks of inspection-periods, each before and after the experiment period. The adapted program was composed of activities of the psychomotor program with including tension and relaxation. For the verification of the study, the levels of delinquency and aggression, the outward expressed forms of anger, were measured and analyzed. **Findings:** The results showed statistically significant effect both on delinquency levels and on aggression levels, especially very positive effect on aggression levels. So we can see that adolescents' participation in psychomotricity has very positive effect on their anger management. And the aggression levels increased in the control group, it seemed why during the study period they continued to experience indirect violence from the internet, etc. **Application/Improvements:** We suggest that the psychomotor program designed for this study has very positive effect on adolescents' anger management and can be actively used for general adolescents in schools or regional educational fields.

Keywords: Adolescent, Aggression, Anger Management of Convergence, Delinquency, Psychomotor

1. Introduction

Recently emerging as social issues, adolescent maladjustment problems such as juvenile delinquency, school violence and running away from home, seem to be closely related with psychological factors such as failed anger management in particular¹. In addition, adolescence or puberty, characterized as a time of "storm and stress," is the period where children cause trouble by behaving in defiant, unpredictable and fussy ways for no reason². Adolescents in this period of sudden change have difficulty controlling their anger, thereby causing various social problems³. Spontaneous and sensual nature of

today's culture further induces impulsive and sensual responses from children⁴. Adolescents with high level of anger often have arguments with their parents or siblings, and tend to skip school without notice or drop out of school, run away from home, engage in drug abuse or other serious delinquent behaviors resulting from inability to understand other people, insufficient social skills and inadequate self-expression⁵.

Although not all delinquent behaviors involve anger, it is the major factor behind aggressive and delinquent behaviors of children, and children from maladjusted juvenile groups generally experience higher levels of anger than those from well-adjusted groups⁶. Negative emo-

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tions such as anger are associated with delinquency. Most juveniles lack opportunity to practice recognizing their own emotions precisely and dealing with them effectively, which causes maladjusted behavior such as bullying, peer violence, depression and aggression⁴. Teachers who approach children's aggressive behavior focusing only on how they express their anger outside might overlook the children's anger itself, which is the root cause of the behavior⁶.

Anger, as a significant energy that protects human³, is a very natural and universal emotion. However, anger can be problematic when it grows too much in its expression, intensity, frequency, and duration, and when one fails to find an adequate way to express his anger and therefore engages in aggressive behavior that hurts himself as well as other people to let them know that he is angry⁶. Behavioral response of anger varies widely from facial expressions to aggressive behaviors¹. Aggression is negative expression employed to release anger, which can be destructive for the angry person and other people, and cause a number of problems in relationships⁴.

According to⁷, anger is a preceding emotion that provokes aggressive attitude and behavior. They claim that anger management training has great importance in that aggression grown at an early stage of a person's life lasts for a long period, and anger comes out as aggressive behavior, leading to emotional disorders⁸. In addition¹, suggest that research on the development of an anger management program for juveniles is needed as controlling anger is the foundation of positive social behavior.

According to⁹, physical movement is continuous flow of tension and relaxation. Tension is built through emotional responses to danger, uncertainty and fear, whereas relaxation involves happiness, peaceful feelings and easing of tension, which cannot happen in fearful situations. In short, relaxation occurs when certainty, interests and comfortable feelings are guaranteed¹⁰ emphasized the importance of relaxation in childhood, saying that relaxation is a psychophysiological process of great value that reduces arousal, with its positive effects on the psychological and physiological level and in eliminating physical agitation or tension arising from anxiety or aggression. Controlling tension and relaxation of muscles helps reduce physical agitation, motility disorders and tense feelings stemming from behavioral problems¹¹.

Psychomotricity refers to physical activities through which children experience holistic development by

expressing themselves and behaving freely through play¹¹. Tension and relaxation, which are mainly dealt with in physical experience, material experience and social experience, the major aspects of psychomotricity, play a crucial role in qualitative change in movement⁹. Psychomotricity is play that involves physical activities which uses play and exercise as tools that proceed with free and joyful imagination of children, focusing on physical movement as the foundation for holistic and well-rounded development of children's social skills, emotions and body¹². A psychomotor program allows children to experience an objective evaluation of themselves through physical movement, and eventually have a sophisticated understanding of themselves, going beyond simply good or bad¹³.

This study aims to identify the effect of adolescents' participation in psychomotricity on their anger management, and provide basic data for psychomotor programs for anger management of adolescents.

2. Materials and Methods

2.1 Study Subjects

This study was conducted with 20 elementary school students (grades 5-6) living in city A. Ten of the students were assigned to the experimental group who participated in a psychomotor program, and the other ten to the control group. The Social Maturity Scale (SMS) developed¹⁴ was used to look into specific conditions of the subjects. Pre- and post-tests were conducted on the experimental and the control groups to verify the effectiveness of the study. The entire study lasted for 18 weeks, with a psychomotor program carried out for 16 weeks and pre- and post-tests taken within one week before and after the program.

The experimental group participated in the 16-session psychomotor program once a week, for 16 weeks, 60 minutes per session, while the control group did not take part in any particular program during the period. Prior to the experiment, approval was received from the subjects and their parents after giving explanation about the study. General characteristics and the SMS results of the children are shown in Table 1.

Table 1. General characteristics of children

Group	Age	Sex	SMS:SQ
EG	11.5 ±6.50	M:2 F:8	107.0 ± 6.71
CG	11.2 ±7.07	M:3 F:7	105.6 ± 8.56

Table 2. Psychomotor program

	Gradual Muscle Relaxation/ Theme Activity	Session duration (60')/ Application of the program
1	Tension and relaxation of hands and arms: starting from the dominant side/ Falling Leaves	5'/ Body Experience
2	Tension and relaxation of hands and arms/ Trees and Wind	5'/ Body Experience
3	Tension and relaxation of hands and arms → Tension and relaxation of the eye area / The Secret Number	7'/ Body Experience
4	Tension and relaxation of hands and arms → Tension and relaxation of the eye area / We are Twin	7'/ Body Experience
5	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders/ The World Turned Upside- down	10'/ Body Experience
6	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders/ I'm Yuna Kim	10'/ Body Experience
7	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen / I'm the most Awesome	15'/ Body Experience
8	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen / Save the Earth	15'/ socially Experience
9	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen / Remote Control Game	15'/ Body Experience
10	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen / Face With the Body	15'/ material Experience
11	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ Trees and Wind	20'/ Body Experience
12	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ A Big Tree and a Small Tree	20'/ Body Experience
13	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ Hansel and Gretel	20'/ Body Experience
14	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ Find Color	20'/ material Experience
15	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ We are All Taggers	20'/ Body Experience
16	Tension and relaxation of hands and arms → Tension and relaxation of the eye area → Tension and relaxation of shoulders → Tension and relaxation of the abdomen → Tension and relaxation of legs/ Mafia Jewelry Play	20'/ socially Experience

2.2 Measuring Tools and Programs

2.2.1 Scale for Delinquency

The Korea Personality Rating Scale of Children (KPRC), developed and standardized by Kim Ji-hye, Cho Seon-me, Hong Chang-hee and Hwang Sun-taek¹⁵, was used as a measuring tool for delinquency to verify the result of this study. With the Cronbach's alpha of .80, the test data were coded using a reliable KPRC program and commissioned to a professional psychological testing firm to obtain test results.

2.2.2 Scale for Aggression

The scale for measuring aggression used to verify the result of this study was designed by Buss & Durkee, which has 75 questions including 15 reverse scored questions¹⁶. With the Cronbach's alpha of .86, a response to aggression counts for one point, and the higher the score is, the stronger the aggressive tendency is.

2.2.3 Psychomotor Program

An abridged version model of gradual muscle relaxation, introduced in the specialist Intensive Training Course of Korea Psychomotricity Association¹¹, and the Intensive Training Course¹⁷, published by Korea Association of psychomotricity, were used as reference for the psychomotor program used in this study. The psychomotor programs are shown in Table 2.

2.3 Data Analysis Method

To identify the effect of a psychomotor program on adolescents' anger management, the levels of delinquency and aggression were measured in this study, and the SPSS18.0 program was used to analyze the data. The 2-Way (2) RM ANOVA was conducted to verify the effectiveness of this study, while the verification of major effects using syntax editor was carried out to analyze the differences in average between groups and the time of tests when mean-

ingful difference was detected. The significance level of this study is .05.

3. Results

3.1 The Effect of a Psychomotor Program on Delinquency Level

Change in the delinquency levels of adolescents after participating in a psychomotor program is shown in Table 3. The analysis of delinquency levels showed no statistically significant difference in the main effect of the group ($F=.045$, $p=.834$), while there was a statistically meaningful difference in the main effect for the time of pre- and post-tests ($F=13.96$, $p=.002$), and in the interaction between the group and the time of pre- and post-tests ($F=11.84$, $p=.003$). Analysis on the simple main effect was conducted to verify the interaction afterwards, in which delinquency levels were found to be lower in the post-test than the pre-test in the experimental group ($p>.01$), while there was no significant difference between the pre- and the post-test in the control group.

3.2 The Effect of a Psychomotor Program on Aggression

Change in aggression of adolescents after participating in a psychomotor program is shown in Table 4. The analysis on the aggression of the experimental group showed a statistically significant difference in the main effect of the group ($F=19.51$, $p=.001$), the main effect for the time of pre- and post-tests ($F=30.12$, $p=.001$), and in the interaction between the group and the time of pre- and post-tests ($F=51.88$, $p=.001$). Analysis on the simple main effect was conducted to verify the interaction afterwards, in which aggression levels were found to be lower in the post-test than the pre-test in the experimental group ($p<.001$), while there was no significant difference between the pre- and the post-test in the control group.

Table 3. Results- the effect on the delinquency

	Group	Pre	Post	F
Aggression	EG	58.40 ±6.39	51.10 ±3.14	G:.045* T:13.96** G×T:11.84***
	CG	55.40 ±7.18	55.10 ±5.36	

* $p<.05$, ** $p<.01$, *** $p<.001$,

G: Group, T: Pre-Post, G×T: Group×Pre-Post

Table 4. Results- the effect on the aggression

	Group	Pre	Post	F
Aggression	EG	71.00 ±4.59	52.50 ±7.54	G:19.51* T:30.12** G×T:51.88***
	CG	70.00 ±3.33	72.50 ±6.77	

* $p<.05$, ** $p<.01$, *** $p<.001$,

G: Group, T: Pre-Post, G×T: Group×Pre-Post

4. Discussion

This study hypothesized that adolescents' participation in psychomotricity would have a positive effect on their anger management, and obtained a positive result on the effect of a psychomotor program on the adolescents' delinquency levels and aggression, which are subdomains of anger. The result of this study can be discussed as follows:

First, adolescents' participation in psychomotricity was found to have a positive effect on their delinquency levels. In a study conducted¹⁸, elementary school students from low-income households showed lower participation in sports activities after school than average students, and their delinquency levels were higher as well. Their research is in line with this study, which looked into the relationship between activities focusing on body movements and children's delinquency¹⁹ study showing that the team atmosphere in school sports clubs not only reduces direct violent behaviors of children but also prevent their delinquent actions supports psychomotricity's positive effect on adolescents' delinquency levels, which is demonstrated in this study. However, previous studies have so far focused on juvenile delinquents, and not much research has been done on delinquent behavior of general adolescents. In this respect, the result of this study, which was conducted with general adolescents, suggests that psychomotor or other programs for anger management are needed for general adolescents as well.

Second, adolescents' participation in psychomotricity was found to have a positive effect on reducing aggression. However, the increase in the average aggression score of the control group deserves attention when examining the result of this study. The result is in line with the study conducted¹³, which looked at the participation of children under school age in psychomotricity and saw the aggression decline for the experimental group while it increased for the control group. The researchers cited indirect experience of violence through the television and the Internet, wrong child discipline at home and absence of children's emotion management programs as the reasons for the increase. Likewise, adolescents in this study saw their aggression increase during the four-month period due to stress that they get from various sources such as peer relations and study, and absence of adequate emotion management programs. Programs designed to reduce aggression⁴ art therapy involving⁸ discussion-based program. Yet research focusing on motility is lacking. In this

respect, the psychomotor program designed for and used in this study can be applied in schools, child centers and other facilities to reduce aggression of general adolescents.

Third, adolescents' participation in psychomotricity was found to have a positive effect on their anger management, which seems natural, given its positive effects on the subdomains of anger, delinquency levels and aggression. As shown in the study of recent anger management programs², most studies are conducted with adolescents who are inclined to emotional and behavioral problems, and seven out of ten studies made direct methods of dealing with anger into programs as comprehensive programs encompassing perception, emotion and behavior stemming from anger. This may make adolescents participating in the programs stigmatize themselves as someone who are unable to control their anger. The psychomotor program designed for this study is all the more meaningful as it can be applied to all groups of adolescents but not particular subjects, because it is developed for general adolescents.

To conclude, adolescents' participation in psychomotricity has a positive effect on their anger management. In addition, it is believed that the psychomotor program designed for this study can be actively used for general adolescents in schools. Some suggestions can be made based on the conclusion of the study.

First, age groups of study subjects need to be diversified to apply the research.

Second, psychomotor programs for diverse groups of subjects need to be developed.

Third, when adapting the program for muscle tension and relaxation used in this study for other activities, imagination needs to be employed to make the activity of tightening and relaxing muscles enjoyable.

5. References

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