Eduvest - Journal of Universal Studies
Volume 4 Number 11, November, 2024
p- ISSN 2775-3735- e-ISSN 2775-3727

THE EFFECT OF AUDIOLYFE STIMULATION ON EMOTIONAL REGULATION ABILITIES IN CHILDREN, INCLUDING TANTRUMS, ANGER, AND AGGRESSIVE BEHAVIOR

Adhitya Putra Pratama
Rs. Sumber Kasih Cirebon, Indonesia
Email: adhityapratama@gmx.com

ABSTRACT

Emotional development in children is an important aspect in the growth and development process that can affect children's behavior and social interactions. However, many children experience difficulties in controlling their emotions, which can be seen in tantrums, anger, and aggression. Audiolyfe stimulation, as an innovative approach, offers the potential to improve children's emotion control ability. This study aims to explore the effect of audiolyfe stimulation on children's emotion control ability, as well as to understand the mechanisms underlying these behavioral changes. The method used in this study was quantitative with a quasi-experimental approach. Data is collected through observation and questionnaires. The data obtained will be analyzed using descriptive statistics. The results showed that audiolyfe stimulation has an effect on children's emotional control abilities including tantrum behavior, anger, and aggression. Children who were given this stimulation showed a marked decrease in the frequency and intensity of tantrums, as well as a better ability to control anger and reduce aggressive behavior. These changes were more pronounced in the group of children who received Audiolyfe stimulation. This confirms that auditive stimulation such as Audiolyfe can be an effective method in helping children better manage their emotions.

KEYWORDS *Audiolyfe, Emotional Control, Tantrum, Anger, Aggression*

INTRODUCTION

Emotional development in children includes increasing their ability to manage and express emotions, both positive and negative. Emotions are feelings or affections that arise in a person as a reaction to a certain situation or stimulus. The emergence of emotions involves physiological changes, thoughts, and behaviors that can be felt by individuals (Sukatin et al., 2020). This emotional development goes hand in hand with social development, which requires interaction with others.

How to cite: Adhitya Putra Pratama (2024). The Effect of Audiolyfe Stimulation on Emotional Regulation Abilities in Children, Including Tantrums, Anger, and Aggressive Behavior. Journal Eduvest. *4*(11): 10899-10908
E-ISSN: 2775-3727

As children grow older, the quality of their emotional development will increase, in line with their search for self-identity.

Children who are able to manage their emotions well tend to have more positive and adaptive social relationships. However, many children experience difficulties in controlling their emotions, which are often characterized by behaviors such as tantrums, anger, and aggression. This inability to manage emotions can have a negative impact on a child's social environment, both at home and at school. Difficulties in managing emotions can lead to various mental health problems, such as anxiety, depression, and impulsive behavior. Some studies show that individuals who experience neglect tend to have difficulty in recognizing, understanding, and expressing emotions correctly. This is often due to a lack of emotional support and appropriate models of emotion regulation in their environment (Rahma et al., 2024).

Efforts to help children develop emotional control skills so that they can grow into more emotionally stable individuals require assistance from parents and educators, one of which is with audiolyfe stimulation. Sound wave therapy known as AudioLyfe is the latest innovation to improve children's brain intelligence at an affordable cost. AudioLyfe utilizes the wave therapy method to strengthen the integration between the left brain and right brain in children (Nurinda, 2024).

Previous research by (Andriyani et al., 2020) showed that classical guidance using audio media is effective/influential to improve the emotional intelligence of Teuku Umar Junior High School students. Another study by (Wijayanti & Surtikanti, 2014) showed the effect of audio media on the emotional development of group B children at Pertiwi I Gondang Sragen Kindergarten.

The theoretical implication of this study is that it contributes to the understanding of the relationship between auditive stimulation and emotion control in children. The findings expand insights in developmental psychology and neuropsychology regarding how children's brains process auditive stimuli to manage emotional responses, including tantrum behavior, anger, and aggression. This study aims to explore the effect of audiolyfe stimulation on children's emotion control ability, as well as to understand the mechanisms underlying these behavioral changes.

RESEARCH METHOD

The method used in this research is quantitative with an experimental approach. Quantitative method is an approach to collecting and analyzing data that uses numbers and statistics as the main tool. This approach allows us to assess social phenomena objectively and can be tested again (Ardyan et al., 2023). The population in this study were children aged 3-10 years who often experienced emotional control problems, such as tantrums, anger, and aggressive behavior. The research sample was taken by purposive sampling, with a total of 20 children. Data in this study were collected through direct observation and questionnaires filled out by parents or caregivers. The data collected were then analyzed using descriptive statistics to describe the initial conditions and changes that occurred, as well as inferential statistics to test the effect of Audiolyfe stimulation on children's emotional control abilities. This analysis aims to determine whether there are significant differences before and after treatment in the experimental group. The hypotheses proposed in this study are:

H0: There is no significant effect of Audiolyfe stimulation on the ability of emotional control in children which includes tantrums, anger, and aggression behavior.
H1: There is a significant effect of Audiolyfe stimulation on the ability to control emotions in children which includes tantrums, anger, and aggression behavior.

RESULT AND DISCUSSION

RESULTS

This study aims to measure the ability of emotional control in children, especially in the aspects of tantrums, anger, and aggression behavior. The data collection process was carried out through a pre-test filled out by the parents or caregivers of the child, where they gave an assessment of the behavior of the child who was the subject of the study. This initial test was conducted before applying the intervention in the form of Audiolyfe stimulation. After the intervention was given, the final test (post-test) was again filled in by the parents or caregivers of the child to assess changes in the child's behavior after receiving stimulation. The results of the two tests, both pre-test and post-test, were then analyzed to see if there was a significant difference in the ability to control children's emotions, especially in terms of tantrums, anger, and aggression behavior. The descriptive statistical results of these two tests are presented in Table 1, which shows the baseline and endline figures of the impact of the intervention on the behavior of the children studied.

Table 1. Descriptive Statistics Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Experimental pretest	20	55	80	67.15	7.541
Experimental posttest	20	80	90	85.35	3.200
Valid N (listwise)	20				

Based on the results of the tests conducted in the experimental group, the results of descriptive statistics show a significant difference in the ability to control children's emotions after intervention in the form of Audiolyfe stimulation. In the pre-test conducted before the intervention, the minimum score achieved by the children was 55, while the maximum score was 80, with a mean score of 67.15 and a standard deviation of 7.541. These values indicate variations in children's emotion control abilities, including tantrums, anger, and aggression behaviors, before receiving Audiolyfe stimulation. After the intervention, the post-test showed a significant increase in the scores. The minimum score obtained increased to 80, while the maximum score reached 90. The mean post-test score was 85.35 with a standard deviation of 3.200, indicating that the Audiolyfe stimulation intervention had a positive impact on children's emotion control ability, with variations between children getting smaller after the intervention.

These results indicate that Audiolyfe stimulation is effective in improving children's emotion control abilities, particularly in the aspects of tantrums, anger,

and aggression behavior, as reflected by the significant increase in mean scores between pre-test and post-test. However, although there was an increase in the mean, further analytic tests were needed to ascertain whether this difference was truly statistically significant or merely coincidental. Therefore, before conducting a Paired Sample T-Test to test the research hypothesis, an important step is to test the normality of the data.

According to Sugiono in (Dunakhir, 2019) the normality test is used to determine whether the data distribution meets the normal distribution assumption or not. This is important because the Paired Sample T Test has a prerequisite that the data must be normally distributed. In the normality test, if the significance value (sig) is greater than 0.05, then the null hypothesis (H0) cannot be rejected, which means that the data is considered normally distributed. The results of this normality test are presented in Table 2 below.

Table 2. Normality Test Results

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Experimental pretest	.145	20	.200*	.950	20	.363
Experimental posttest	.123	20	.200*	.936	20	.200

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

In the normality test analysis, because the research sample size is less than 50, the Shapiro-Wilk Test is more suitable than the test. The Shapiro-Wilk test is recommended for small samples because of its ability to more accurately evaluate whether the data is normally distributed or not. The Shapiro-Wilk test results showed a significance value of 0.363 for the pre-test and 0.200 for the post-test. Both values are greater than 0.05, which means that the null hypothesis (H0), which states that the data is normally distributed, cannot be rejected. So it can be concluded that the data from the pre-test and post-test are normally distributed.

After the data was declared normally distributed, the next step was to conduct a Paired Sample T Test to see if there was a significant difference between the pre-test and post-test results after the intervention in the form of Audiolyfe stimulation. This study proposed two main hypotheses. The first hypothesis states that Audiolyfe stimulation has no significant effect on the ability to control emotions in children, which includes aspects such as tantrums, anger, and aggression behavior. While the second hypothesis states that Audiolyfe stimulation has a significant influence on children's emotion control ability on these aspects.

To determine whether there is a significant influence, testing criteria based on the significance value (Sig.) are used. If the significance value (Sig.) (2-tailed) is less than 0.05, then the null hypothesis (H0) is rejected and the alternative hypothesis (Ha) is accepted, indicating that Audiolyfe stimulation has a significant effect. Conversely, if the significance value is greater than 0.05, then the null hypothesis (H0) is accepted and the alternative hypothesis (Ha) is rejected, indicating that there is no significant effect of the intervention (Haryanti et al., 2021). Table 3 below presents the results of the Paired Sample T Test.

Table 3. Paired Sample t Test Results

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Experimental pretest - Experimental posttest	-18.200	7.150	1.599	-21.546	-14.854	-11.384	19	.000

Based on the results of the Paired Sample t-Test shown in Table 3, it was found that there was a significant difference between the pre-test and post-test scores in the experimental group. The mean difference between the pre-test and post-test results is -18.200 with a standard deviation of 7.150, which indicates a significant decrease in tantrum behavior, anger, and aggression after the intervention in the form of Audiolyfe stimulation. The t-value of -11.384 with a degree of freedom (df) of 19 resulted in a significance value (Sig. 2-tailed) of 0.000. Since this significance value is smaller than 0.05, the null hypothesis (H0) is rejected. The value shows that Audiolyfe intervention has a significant effect on children's emotion control ability, which includes aspects of tantrums, anger, and aggression behavior.

DISCUSSION

The findings of the research analysis show that Audiolyfe stimulation is effective in improving the ability to control emotions in children. There was a significant difference between the pre-test and post-test results, where the decrease in pre-test scores indicated a positive impact of the intervention on children's behavior, especially in reducing tantrums, anger, aggressive behavior such as shouting and hitting. This finding indicates that the Audiolyfe method was successful in changing the emotional behavior of the children involved in the study to become more controllable.

Audiolyfe stimulation is a technique that uses sound or audio with a certain frequency to stimulate a child's brain. The purpose of this intervention is to help regulate brain waves so as to improve cognitive and emotional functions. The human brain has parts that play a role in managing emotions, such as the amygdala and prefrontal cortex (Šimić et al., 2021). The amygdala is responsible for processing basic emotions, such as fear and anger. Meanwhile, the prefrontal cortex helps children control impulses and make better decisions in dealing with emotional situations, which can reduce aggressive behavior or tantrums.

Audiolyfe stimulation can influence the activity in these areas, helping children to better identify, understand and regulate their emotions. The therapeutic music used in Audiolyfe stimulation is also able to reduce stress and anxiety levels in

children. This has a calming effect, which in turn helps control the urge to get angry or have tantrums. When children become calmer, they are able to respond to situations that would normally trigger anger or aggressive behavior in a more controlled manner. Then as children become calmer and more emotionally controlled, they are more receptive to instructions from their surroundings.

In addition, Audiolyfe stimulation can also improve children's focus, making it easier to distract from things that can trigger negative emotions. Better focus allows children to handle situations more calmly and rationally. This is especially important in situations that trigger emotions, as children with better cognitive abilities tend to be able to find more constructive solutions and avoid impulsive behaviors such as tantrums or aggression.

This research is supported by a number of previous studies that highlight the important role of music and audio-based stimulation in aiding emotion regulation. For example, research conducted by Trost et al. (2024) found that music can stimulate brain areas associated with emotion regulation, such as the amygdala and prefrontal cortex. Music, which has great power in expressing and feeling emotions, is used in affective neuroscience research to uncover brain mechanisms in processing emotions through the sense of hearing. This is in line with findings in Audiolyfe stimulation research that uses sound to help children manage their emotions, especially in reducing behaviors such as tantrums and aggression.

Other studies have also shown that music therapy has a positive impact on mental health. A study by Syarifani (2024) showed that music therapy can help individuals express and manage emotions in healthier ways, with outcomes such as decreased anxiety, depression, and trauma, as well as improved overall well-being and quality of life. These findings are relevant to the results of Audiolyfe's research, which used the element of sound as a form of stimulation to help children manage their emotions more effectively.

In addition, research conducted by Yuliana et al. (2020) also showed similar results, where classical music therapy, specifically Mozart, was shown to improve the emotional intelligence of school-age children. Children who received the music intervention in this study showed significant improvements in their emotional control as well as a decrease in aggressive behavior. This suggests that music or sound-based interventions do have strong potential in helping children manage their emotions and behavior.

Further analysis can be done by considering the stages of emotional development in children and adolescents. Fajri (2021) highlights that children's emotional development goes through various phases, which can affect their behavior both positively and negatively. Therefore, stimulation through audio media, such as Audiolyfe, plays a role in helping children respond to their emotions in a more controlled and effective way.

Therefore, the findings in the study and evidence from previous studies that audio-based stimulation, especially those designed to focus on emotion control, have a significant impact in reducing tantrum behavior, anger, and aggression in children. Further research could explore the optimal duration of this intervention, as well as consider combinations with other methods, such as mindfulness exercises, to maximize the benefits of Audiolyfe stimulation.

CONCLUSION

Audiolyfe stimulation has a positive influence on the ability to control emotions in children, including in terms of tantrums, anger, and aggression behavior. Children who received audiolyfe stimulation experienced a decrease in the frequency and intensity of tantrums, as well as being able to control anger and reduce aggressive behavior better so that they are more familiar with instructions in their environment including at home and at school compared to the group that did not receive the stimulation. The results of this study indicate that the audiolyfe auditive stimulation method can be an effective approach in helping children to manage their emotions more optimally.

REFERENCES

Andriyana, E., Sayekti, S., & Rimayati, E. (2020). Efektivitas Bimbingan Klasikal Menggunakan Media Audio-Visual untuk Meningkatkan Kecerdasan Emosional Siswa SMP Teuku Umar Info Articles. *Emphaty Couns: Journal of Guidance and Counseling, 2 (2)*, 1-11.

Ardyan, E., Boari, Y., Akhmad, A., Yuliyani, L., Hildawati, H., Suarni, A., ... & Judijanto, L. (2023). *Metode Penelitian Kualitatif dan Kuantitatif: Pendekatan Metode Kualitatif dan Kuantitatif di Berbagai Bidang*. PT. Sonpedia Publishing Indonesia.

Dunakhir, S. (2019). Uji Reliabilitas dan Normalitas Instrumen Kajian Literasi Keuangan.

Fajri, A. (2021). Strategi Pengendalian Emosi Pada Anak Usia Sekolah Dasar Untuk Mendukung Kecerdasannya. *Jurnal Kajian Dan Pengembangan Umat*, *4*(1).

Haryanti, W., Adisel, A., Syafir, F. S., & Suryati, S. (2021). Pengaruh Media Dua Dimensi Terhadap Pemahaman Konsep Matematika. *Journal of Elementary School (JOES)*, *4*(2), 160-165.

Nurina, V. (2024). Tren Audiolyfe untuk Perkembangan Anak, Benarkah bermanfaat?. https://www.rri.co.id/kesehatan/776940/tren-audiolyfe-untuk-perkembangan-anak-benarkah-bermanfaat#:~:text=Terapi%20gelombang%20suara%20atau%20yang,dan%20otak%20kanan%20pada%20anak. Diakses pada 10 Oktober 2024.

Rahma, S. A., Ikhsan, A. P. P., & Yemima, D. (2024). Dampak Pengabaian Orang Tua Terhadap Regulasi Emosi Anak. *Jurnal Psikologi*, *1*(4), 18-18.

Šimić, G., Tkalčić, M., Vukić, V., Mulc, D., Španić, E., Šagud, M., ... & R. Hof, P. (2021). Understanding emotions: origins and roles of the amygdala. *Biomolecules*, *11*(6), 823.

Sukatin, S., Chofifah, N., Turiyana, T., Paradise, M. R., Azkia, M., & Ummah, S. N. (2020). Analisis perkembangan emosi anak usia dini. *Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini*, *5*(2), 77-90.

Syarifani, N. (2024). Implikasi Music therapy sebagai bentuk katarsis dan relaksasi emosi (Implications of Music Therapy as a Form of Catharsis and Emotional Relaxation). *Happiness: Journal of Psychology and Islamic Science*, *8*(1), 1-11.

Trost, W., Trevor, C., Fernandez, N., Steiner, F., & Frühholz, S. (2024). Live music stimulates the affective brain and emotionally entrains listeners in real time. *Proceedings of the National Academy of Sciences*, *121*(10), e2316306121.

Wijayanti, I., & Surtikanti, S. H. (2014). *Pengaruh Media Audio Visual Terhadap Perkembangan Emosi Anak Kelompok B Di TK Pertiwi I Gondang Sragen Tahun Pelajaran 2013/2014* (Doctoral dissertation, Universitas Muhammadiyah Surakarta).

Yuliana, A. R., Pujiastuti, S. E., & Hartati, E. (2020). Efektifitas Terapi Musik Klasik Monzat Dalam Meningkatkan Kecerdasan Emosi Pada Anak Sekolah Usia Dasar. *Jurnal Keperawatan Dan Kesehatan Masyarakat Cendekia Utama*, *9*(1), 46-56.