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Art therapy as a means of correcting the psychoemotional state of primary school children with stuttering

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Abstract

The article provides experience in the use of art therapy for the correction of the psychoemotional state of primary school children with stuttering. In order to experimentally test the effectiveness of the developed system of exercises on the use of art therapy in correcting the psychoemotional state of primary school children with stuttering, the following tasks were identified:

1. To diagnose the initial level of the psychoemotional state of primary school-age children suffering from stuttering.

2. To develop and test a system of art therapy exercises for the correction of the psychoemotional state of primary school children with stuttering.

3. To determine the effectiveness of the system of art therapy exercises for the correction of the psychoemotional state of primary school children with stuttering.

The study was conducted in three stages. To determine the level of formation of the psychoemotional state of primary school children with stuttering, we used the experience and recommendations for working with children who have speech fluency disorders by Wiesel, as well as: an adapted projective technique in the form of a diagnostic game "The Missing Monkey", developed by Voropaeva; the method of studying the emotional state by the type of color sensitivity shift according to Dorofeeva; "Children's anxiety test", developed by American psychologists Tamml, Dorki and Amen; methodology for determining self-esteem "Ladder" for primary school age, modified by Shur; "Methodology for studying the motivation of learning in older preschoolers and younger schoolchildren" by Ginzburg. After analyzing the survey data, we found that all children have:

- violations of the emotional sphere, manifested in the lack of means of emotional expression;

- the indicator of the emotional state is characterized by a change in the parameters in the area of the state of arousal, but this is caused by negative emotions;

- violations of communicative interaction are determined by an increased level of anxiety.

Keywords: stuttering, art therapy, psychoemotional state, primary school students, correctional work, game exercises.

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Introduction

Currently, one of the most pressing problems is the constant increase in the number of children with speech disorders. Stuttering is a small percentage, but it is a complex speech disorder. Overcoming stuttering and its relapses are possible only with a comprehensive approach, with the mandatory use of new and effective means of correction. One of these tools is art therapy, as a psychotherapeutic technique that allows you to obtain the best results. Art therapy is a new direction that is increasingly being used in working with children. A soft and unobtrusive effect on the psyche is carried out in the form of creative activities. The value of art therapy is that it allows you to balance the mental state of the child, reveals his or her ability to express himself or herself and self-knowledge (Kiseleva, & Belovolova, 2010).

Purpose and objectives of the study

Based on the above, **the aim of the study** is to develop and test a system of art therapy exercises in the correction of the psychoemotional state of primary school children suffering from stuttering.

Research objectives:

- study of the specifics of using art therapy when working with stuttering children;

- study of the psychoemotional state of primary school children with stuttering;

- disclosure of the task's features and the content of classes, depending on the stage of work to eliminate stuttering in children of primary school age, by influencing the psychoemotional state by means of art therapy.

Literature review

The problem of stuttering has been studied by scientists from different countries for many years, but to date it remains the least studied relative to other problems associated with speech disorders. Vlasova & Rau (1933) developed the first domestic method of working with stuttering children. It was built on the increasing complexity of speech exercises depending on the possibilities of speech independence of children. Vygodskaya, Pellinger, & Uspenskaya (1993) were engaged in the problem of stress relief in stuttering, and developed a system of relaxing exercises specifically for schoolchildren. Yastrebova (1980) worked on the problem of eliminating stuttering in primary school students, which occurs against the background of general speech underdevelopment. Seliverstov (2001) studied the problem of effective elimination of stuttering in medical institutions. Cheveleva (1966) worked on the problem of the development of coherent speech in children with stuttering in the process of manual activities. Harutyunyan (1993) studied the problem of prosodic aspects of speech and timing of rhythmical and intonation pattern of the sentence fingers dominant hand. Belyakova & Dyakova (2012) worked on the problem of the formation of the diaphragmatic exhalation. Volkova & Shakhovskaya (2008) are the founders of the methods of logorhythmic influence on patients, which are successfully used in the process of correcting stuttering.

Kolyagina (2015) in her research "Art-therapeutic program of psychocorrective work on normalization of the emotional and personal sphere of stuttering preschoolers" analyzes the implementation of psychocorrective work to overcome violations of the emotional-volitional sphere (anxiety, fears, etc.) in preschool stuttering children. A psychocorrective program is also presented, which includes classes that contribute to the normalization and development of the emotional and personal sphere of stuttering children. Povarova (2004) in her book "Correction of stuttering in games and trainings" includes a set of recommendations and exercises for training various speech skills: phonation breathing, control of the pace and rhythm of speech, correct articulation, voice science. All exercises are presented in a simple and accessible form. Tasks are offered in the form of entertaining games, game exercises and trainings. Pellinger & Uspenskaya (1995) in their research "How to help stuttering schoolchildren: A book for a speech therapist" present various ways of influencing the speech of stuttering people, special attention is paid to games that contribute to the formation of smooth free speech skills.

Methodology

To diagnose the psychoemotional state of children, we used the experience and recommendations for working with children who have speech fluency disorders by Wiesel (2018), as well as:

* the adapted projective technique in the form of the diagnostic game "The Missing Monkey", developed by Voropaeva (cited in Vygodskaya, Pellinger, & Uspenskaya, 1993);

* the method of studying the emotional state by the type of color sensitivity shift according to Dorofeeva (1970);

* "Children's anxiety test", developed by American psychologists Tamml, Dorky, & Amen (1992);

* the self-assessment methodology "Ladder" for primary school age, modified by Shchur (2016).

In our work, we used adapted tasks and exercises from:

* Art-therapeutic program of psychocorrective work on the normalization of the emotional and personal sphere of stuttering, developed by Kolyagina (2016).

* Methods of correction of stuttering with the help of games and trainings by Povarova (2004).

* Methods of Vygodskaya, Pellinger, & Uspenskaya (1993) for the elimination of stuttering in game situations.

The study was conducted on the basis of the Ferzikovskaya secondary school in the village of Ferzikovo. The informed consent of parents of the students was obtained. Four primary school-age children suffering from neurotic stuttering took part in the experiment:

1) Ivan is a student of the 2nd class.

The average degree of stuttering: in a calm state, there is little stuttering, in an emotional state it is strongly manifested (a weak nervous system).

Wave-like type of flow: stuttering increases, then weakens, but does not disappear.

Type of seizures: mixed tonoclonic.

Localization of seizures: articulatory (lingual).

2) Nikita is a student of the 3rd class.

The average degree of stuttering: in a calm state and a familiar environment, stuttering is less, in an emotional state there is a strong manifestation.

Constant flow type: manifests itself constantly in various situations and forms of speech.

Type of seizures: clonic.

Localization of seizures: mixed: vocal closure (convulsively closed vocal cords can not open in a timely manner), and articulation (lower jaw).

3) Ruslan is a student of the 3rd class.

Severe degree of stuttering: stutters throughout speech with accompanying movements.

Constant flow type: manifests itself constantly in various situations and forms of speech.

Type of seizures: mixed tonoclonic.

Localization of seizures: mixed: vocal closure (convulsively closed vocal cords can not open in a timely manner), and respiratory (inspiratory) - convulsive inhalation with sobbing.

4) Egor is a student of the 1st class.

Mild degree of stuttering: stutters only in an excited state and when trying to speak quickly.

Recurrent type of course: the return of stuttering, after periods of normal speech.

Type of seizures: clonic.

Localization of seizures: articulatory (lips and lower jaw).

Experimental group (group A): Ivan, Ruslan. Control group (group B): Nikita, Egor.

Results

The table shows the tasks and content of classes, depending on the stage of work to eliminate stuttering in children of primary school age, by influencing the psychoemotional state by means of art therapy.

Table 1. The results of the impact on the psychoemotional state of children with stuttering.

Aims of speech therapy correction	Tasks and content of classes aimed at correcting the psychoemotional state
Preparatory stage	
legs in contrast to tension; 2. Teach diaphragmatic-costal breathing and regulate the distribution of exhalation into certain speech segments: syllable, syllabic sequences,	-
word; 3 Develop the necessary articulatory movements	3. Correction and prevention of fear of speech: "Drawing fears". "Come up with a fun ending", "Draw
for free control of the muscles of the tongue, lips,	a scary funny (kind)".
and lower jaw;	4. Increase self-confidence: "Chromotherapy: drawing

 4. Master the technique of correct speech when pronouncing words, phrases: slow-motion speech, soft sound attack, reliance on the stressed vowel sound, integration of voice science; 	yourself in different colors" 5. Fixing positive experiences of success in the case of overcoming fear.
5. Improving nonverbal communication methods.	Main stage
1 Cause relayation of the neck muscles and	1. Emotional stress relief "Lemon", "Sand therapy: a
articulatory apparatus in contrast to tension (using massage);2. Teach the technique of correct speech when pronouncing phrases, reading poems, texts;3 Formation of speech expressiveness;	 warm puddle"; 2. Formation of an adequate attitude to the speech defect: "A fairy tale about children who were afraid to speak" 3. Correction and prevention of fear of speech: "Drawing fears", "Come up with a fun ending", "Draw a scary funny (kind)". 4. Increase self-confidence: "Chromotherapy: drawing yourself in different colors" 5. Fixing positive experiences of success in the case of overcoming fear.
Final stage	
 legs in contrast to tension; 2. Complicate and expand speech communication at school and at home: - increase the volume and duration of messages, - train spontaneous utterances in different situations; 3. To form speech courage; 	 Emotional stress relief: "Listen to the music and draw her mood»; Development of the ability to express your emotional state in color: "Chromotherapy" Normalization of self-esteem and the formation of a positive image of the "I": "Isotherapy: "I am now, I am in the future" Formation of the ability to voluntarily self-regulate emotional experiences and behavioral reactions: "Chromotherapy: balloons".

The system of correctional work to eliminate stuttering was carried out in an individual form and was combined with the process of normalization of the psychoemotional state by means of art therapy.

At the preparatory stage, the art therapy work was aimed at evoking a positive emotional state and reducing feelings of anxiety. An example of using "Chromotherapy":

On the table in front of the child there are lamps of different colors inserted in a special case: blue, green, yellow, red and one combined on the control panel (16 colors can be selected). Depending on the story, the child silently turns on the desired color and turns off the one that he considers necessary to remove. The office lights are off and the window is closed.

"We're going for a walk now. Imagine a sunny morning, we went outside, the big, yellow sun is shining so brightly (the child turns on the yellow lamp) that our nose tickled. Let's breathe properly, so that the nose no longer itches:

Stroking the nose from the tip up with the middle fingers-inhale; patting the nostrils with the middle fingers - exhale.

"Suddenly we smelled the fragrance of a beautiful flower.

Close one nostril with the middle finger-inhale, exhale. Exercise to perform, alternating the left and right nostril.

Close one nostril with the middle finger-inhale; exhale through the other nostril (alternate nostrils).

- The flower grew in the silky green grass (the child turns on the green lamp), it swayed in the wind:

Undulating relaxing movements of the hands to the right-left, up-down.

- And then we saw a delicious, juicy berry in the grass (the child turns on the red lamp), which we wanted to eat:

Open your mouth wide and breathe through your nose.

Inhale with your mouth wide open, exhale with your nose: through two nostrils; through one nostril, close the other with your middle finger (alternate nostrils).

- Ate a berry (the lamp turns off, as the red color should be used in a small dose). We smelled the salt sea (the child turns on the blue lamp):

Inhale through the nose, exhale through one nostril, close the other with the middle finger (alternate nostrils).

- The sea roared and splashed softly:

Inhale through the nose, bend the arms at the elbows and bring them to the trunk, exhale through the mouth slowly pronounce sh-sh-sh with different strength and longitude. Slowly stretch your arms out.

- An unusual fish with shiny scales was splashing in the sea (the child turns on the lamp), she was bored, and she asked to play with it: "Please repeat after me everything I do and say":

Next, articulation and voice exercises were performed. The emotional background of each child was positive, all tasks were performed with pleasure. The children were relaxed and open, so the pronunciation of the word outline and the words themselves, beginning with the stressed iotic sound of monosyllabic, two-syllable, and three-syllable, was performed without stuttering attacks.

A fragment of the lesson of the preparatory stage, aimed at developing external emotional expressiveness and increasing self-esteem with the use of "fairy tale therapy": "A fairy tale without words, about a giant".

- Now I will tell a fairy tale, and you will portray it in actions. Once upon a time there was an evil giant, very evil! Imagine how the evil giant walks, how he stomps, how he waves his hands. What is the face of the evil giant, how does he frighten everyone: growls, howls?

- He scared the animals all over the area, and was left alone. He became bored, sad, and began to cry. Picture it.

- But, somehow, a small bird flew into the forest to the giant (show the size, how it walks, how it flaps its wings, how it sings). The giant made friends with her and decided to become kind. What is the face of the good giant? How does he walk, how does he dance, how does he sing?

- And the bird and the giant became good friends, began to live together and no longer frighten anyone.

At first, the children's movements were constrained, but over time, the movements became more relaxed and confident. The children agreed and were happy to come up with a new fairy tale. Further in the lesson, when pronouncing words beginning with the stressed vowels [a], [o], [y], [e], [i], there were no speech tricks and convulsions.

At the main stage, the art therapy work was aimed at relieving emotional tension, correcting and preventing fear of speech, as well as increasing self-esteem. An example of using "Sand Therapy", aimed at relieving emotional tension and developing speech breathing:

On the table is a box with sand (fine grits) and colored stones, during the lesson, the hands are immersed in the sand, and pour it through the fingers.

- Imagine that you are standing barefoot near a large warm puddle with a deep muddy bottom. You lower your right hand into it, and your fingers sink into the soft and warm mud. You really want to feel the soft bottom with your whole palm. The silt passes between your fingers, and you push harder and harder. Take your right hand out of the puddle and relax it. Now the same with the left hand, with both hands. Pouring sand through your fingers, we train speech breathing:

"Ah!

"Ah! What!

"Ah! What white sand ...

"Ah! What white sand and colored stones...

- Let's count the stones: 1,2... to 10 and count back.

To increase self-confidence, a class was held using "Chromotherapy": painting yourself in different colors. A stencil of a person is given and the student must color it depending on the mood (cheerful, sad, tired). The advantage of this class is that a bad mood can always be changed to a good one. This is achieved by painting a dark color with a light one. One of the children has an obsessive fear of heights-acrophobia, he was asked to express the color of the sensations that he experiences in this state. He spent a long time mixing colors of different shades. He was asked to repaint his fear in yellow or orange, as these colors regulate the state of the nervous system, help to remove fatigue, uncertainty, anxiety and fear.

At the final stage, the art therapy work was aimed at relieving emotional tension and developing the ability to voluntarily self-regulate emotional experiences. A fragment of a lesson using "Chromotherapy: balloons", aimed at relieving emotional tension and using rhythmized speech:

- Look at the balloons in my hands (blue, red, yellow, green). I will tell you a poem, and you will use the claps to repeat it after me.

Different, different,

Blue, Red,

Yellow, Green

Balloons (Vygodskaya, Pellinger, & Uspenskaya, 1993).

With a strong form of stuttering, it is recommended to use whispered speech.

- Well done! Our mood during the day can change very quickly and quite often. It looks like light colored balls, carried away by the wind into the distance. Let's also blow like the wind: inhale through the nose – exhale through the mouth, as hard as possible on the ball.

This exercise is performed at all stages, in order to form proper breathing. Next, exercises are performed to relax the muscles of the body and legs in contrast to the tension, using balloons.

- Read the story (fables of Lev Gavrilov), and try to retell its content in your own words.

Man and Cockroaches

In the house where the Man lived, two Cockroaches fought behind the stove.

"Hey, you guys, keep it down!" The Man shouted at them.

"It's a nightmare," the two Cockroaches decided, " there's no living from these neighbors.

- And now, let's try to convey the mood with a balloon. There are 2 options available:

1) the silhouettes of the balls that need to be painted over and draw the listed emotions on each ball;

2) the lamp of the desired color is turned on, and transparent stencils of balls are substituted.

Emotions to choose from (written on a piece of paper):

- respect, love, peace of mind, gratitude, joy, trust;

- fear, fright, shame, anger, horror, anxiety;

- curiosity, surprise, indifference, contemplation.

- What do you think, what was the mood of the person? Choose the right color and explain.

- What was the mood of a person when he heard the fight of cockroaches?

- What was the mood of the cockroaches?

- What was the mood of the cockroaches when a man shouted at them?

- What was your mood this morning?
- What's your mood right now? Why?

These questions are also aimed at increasing the volume and duration of the statement. The children chose both options for completing the task, and the retelling of the text about cockroaches caused a positive emotional mood.

At the end of the experiment stage, we can state that in our activities we often used such a type of art therapy as "chromotherapy" using colored lamps, since the children liked this type of work more, and they asked to use it in every lesson. The method of using color lamps required the absence of electric lighting, which gave a positive mood during the correctional class, all attention was focused on the lamps and the children were not distracted. During the switching of the color lamps, the children relaxed and performed better tasks aimed at correcting the speech disorder.

The diagnostic study was aimed at identifying the effectiveness of a system of exercises aimed at correcting the psychoemotional state of primary school children suffering from stuttering with the help of art therapy. The study was carried out applying the same methods that were used at the ascertaining stage of the study: the adapted projective technique in the form of the diagnostic game "The Missing Monkey", developed by Voropaeva (cited in Vygodskaya, Pellinger, & Uspenskaya, 1993); the method of studying the emotional state by the type of color sensitivity shift according to Dorofeeva (1970); "Children's anxiety test", developed by American psychologists Tamml, Dorky, & Amen (1992); the self-assessment methodology "Ladder" for primary school age, modified by Shchur (2016).

As a result of the study, we can note that in the group where work was carried out to correct the psychoemotional state using a system of art-therapeutic exercises:

* the indicator of external emotional expressiveness of the emotional sphere criterion remained at the same level, but its qualitative characteristics improved slightly;

* the emotional state indicator of the emotional sphere criterion also showed a shift in favor of positive data;

* the indicator of anxiety of the criterion of communicative interaction decreased by 13%, and in the control group during the same time increased by 12%;

* the self-assessment indicator of the emotional sphere criterion also showed positive dynamics.

Discussion

Thus, it can be concluded that if art-therapeutic means are included in the process of speech therapy correction, then the stabilization of the psychoemotional state of primary school children suffering from stuttering will be more effective.

After studying the techniques of art therapy as a means of correcting the psychoemotional state of primary school children suffering from stuttering, we came to the conclusion that this direction is a fairly young form of psychotherapy, although some types of this direction were used in ancient times.

Having studied the criteria, indicators, and levels of the psychoemotional state of primary school children suffering from stuttering, we can note that reducing the level of anxiety must be taken into account when working with children suffering from stuttering. In our study, it was found that each subject has an increased level of this indicator. Anxiety is provoked by such experiences as self-doubt, shyness, anxiety. Trying to hide the defect, children resort to various kinds of tricks, thereby aggravating the situation.

Having selected a system of exercises for correcting the psychoemotional state of primary school children suffering from stuttering with the help of art therapy, we saw that art therapy classes have proven their effectiveness for the development and correction of communication skills in children with stuttering. The system of exercises developed and used by us, aimed at correcting the psychoemotional state, gave positive results in eliminating stuttering. During classes with the use of art therapy, the children were better in contact, felt more relaxed and enjoyed performing exercises.

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Conclusion

Analysis of psychological and pedagogical, special and methodological literature on the correction of stuttering, allows us to conclude that stuttering is a speech disorder characterized by a variety of causes, the presence of a complex set of symptoms and, in most cases, low efficiency of elimination.

These problems are even more aggravated in younger schoolchildren, as a child who enters school faces serious life changes: mental, physical, and emotional stress increases, the daily routine changes, and a number of new worries and responsibilities appear. In the period from the first to the fourth grade, children experience disharmony in their physiological development - physical development outstrips the neuropsychiatric development of the child. As a result, there is a temporary weakening of the nervous system. In younger students, there are signs such as increased fatigue, anxiety, and an increased need for movement.

The results of the study: the system of exercises developed and used by us, aimed at correcting the psychoemotional state, gave positive results in eliminating stuttering. We have developed methodological recommendations for speech therapists on the use of art therapy as a means of correcting the psychoemotional state of younger schoolchildren with stuttering.

References

- Belyakova, L. I., & Dyakova, E. A. (2012). Speech therapy. Stuttering: studies. Moscow: Publishing Center "Academy".
- Cheveleva, N. A. (1966). Correction of speech in stuttering schoolchildren. Moscow: Prosveshchenie.
- Dorofeeva, E. T. (1970). Color sensitivity shift as an indicator of emotional states. *Mental illness*, 319(326).
- Harutyunyan, L. Z. (1993). *How to treat stuttering: A method of stable normalization of speech*. Moscow: Erebus.
- Kiseleva, T. Yu., & Belovolova, S. P. (2010). Art-therapy as a psychological and pedagogical technology. *Siberian Pedagogical Journal*, *11*, 218-225.
- Kolyagina, V. G. (2016). Art therapy and art pedagogy for preschool children: textbook. Prometheus.
- Kolyagina, V. G. (2015). Art-therapeutic methods of psychocorrectional work on the normalization of the emotional and personal sphere of preschool children with speech disorders. *Clinical and special* psychology, 4(2), 98-114.
- Povarova, I. A. (2004). Correction of stuttering in games and trainings. Saint Petersburg: Piter.

- Selishcheva, T. V. (2017). Correctional and developmental classes with children 5-7 years old. Multifunctional interactive environment of the dark touch room. Fairy-tale therapy. Game therapy. Publishing house "Teacher".
- Seliverstov, V. I. (2001). Stuttering in children, psychocorrection and didactic bases of speech therapy classes: textbook. Moscow: VLADOS.
- Shchur, V. G. (2016). Ladder method. *Testoteka*. Retrieved January 20, 2021, from http://testoteka.narod.ru/lichn/1/34.html
- Tamml, R., Dorky, M., & Amen, V. (1992). Anxiety test. Moscow.
- Tkach, R. M. (2008). Fairy tale therapy of children's problems. Saint Petersburg: Rech.
- Vlasova, N. A., & Rau, E. F. (1933). *Methods of work with stuttering preschoolers and toddlers*. Moscow: State educational and pedagogical publishing house.
- Volkova, L. S., & Shakhovskaya, S. N. (2008). Speech therapy: a textbook for students from speech therapy faculties of pedagogical universities. Moscow: VLADOS.
- Vygodskaya, I. G., Pellinger, E. L., & Uspenskaya, L. P. (1993). *Elimination of stuttering in preschool children in game situations: book for a speech therapist*. Moscow: Prosveshchenie.
- Wiesel, T. G. (2018). On the nature of stuttering and its correction. Special Education, 1(49).
- Yastrebova, A. V. (1980). Correction of stuttering in secondary school students: A manual for speech therapy teachers. Moscow: Prosveshchenie.