Psychocorrection of Adolescents 'Anxiety by Music Therapy

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Abstract: Personal anxiety in adolescence is largely determined by psychological factors (personal, adaptive, motivational), and the correction of personal anxiety in adolescents is possible by combining two areas of work: reducing the effects of psychological factors on its occurrence; development of constructive forms of behavior in psychogenic situations, in conditions of increased anxiety through the use of music therapy. The aim of the study is to study the state of anxiety in adolescence after psychocorrection by music therapy. A set of methods was used to study the psychological features of anxiety in adolescents, ways to overcome and level before and after the psychocorrection program. There are a number of positive changes in the indicators of personal and motivational factors of anxiety: an increase in self-esteem and responsibility, increased self-esteem, which, in turn, led to a decrease in the difference between this indicator and the level of claims, a change in attitude realistic type, changing the distribution of affiliation motives and achieving in favor of the motive of the desire to accept and the desire to succeed, respectively. The effectiveness of the corrective effect was manifested in the change in the distribution of subjects by levels of anxiety. A high level of personal anxiety was recorded, after the implementation of the program it halved. During the study, a number of positive changes in the indicators of personal and motivational factors of anxiety were recorded. The results show, however, that psychocorrectional work with music therapy is effective in the work of a psychologist. The obtained results can be used both during the training of future psychologists, the development of a psycho-correctional program and during family counseling.

Keywords: personality; adolescence; psychological states; music therapy; treatment-and-prophylactic medicine; art therapy.

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General Background of Research

Such scholars as L. Borovyk, L. Matokhniuk, K. Demyanyuk, V. Shevchuk, S. Pidhaichuk, O. Danylko, A. Halimov, I. Bloshchynskiy, I. revealed the peculiarities of professional imagination formation in the process of implementation of technical disciplines with the aid of modern information technologies (Borovyk, Matokhniuk, Demyanyuk, Shevchuk, Pidhaichuk, Danylko, Halimov, Bloshchynskiy, 2020). Some issues on changing the educational paradigm in post-pandemic world, namely: solidarity of efforts as a common condition for the survival of the world in a pandemic; possibilities and risks of artificial intelligence using were presented in the works of S. Hanaba, O. Mysechko, I. Bloshchynskiy (Hanaba, Mysechko, Bloshchynskiy, 2020).

As for higher school instructors’ pedagogical skills improvement as a basis of educational strategy for development of students’ professional training, these aspects were substantiated by I. Melnychuk, I. Drozdova, I. Savchak, I. Bloshchynskiy (Melnychuk, Drozdova, Savchak, Bloshchynskiy, 2019). Problems of complex portfolio usage as one of the means of the future primary school teachers training of the new Ukrainian school were regarded in the work A. Kykylyk, H. Stukan, L. Hlushok, I. Shorobura, I. Bloshchynskiy (Kykylyk, Stukan, Hlushok, Shorobura, Bloshchynskiy, 2020). Other scientists studied the strategic significance of English in self-education of the students of socio-humanitarian specialties for fundamentalization of university education (Melnychuk, Rebukha, Zavgorodnia, Bloshchynskiy, 2018).

An important circumstance that enhances the relevance of the study of psychological features of anxiety in adolescents is the need to take into account their age specifics to exclude diagnostic errors (Savchin, Vasylenko, 2005). Adolescence deserves special attention, because it is the period of formation and fixation of stable psychological properties of the individual. Modern psychology is largely focused on the use of music therapy in correctional work as an important means of forming a harmonious personality of the adolescent (Ermine, Titarenko, 2001). Technologies of music therapy provide activation of emotional and volitional potential, correction and development of cognitive and motivational components of personality, act as a means of communication, contribute to the formation of purposeful knowledge of the surrounding reality, etc. (Shportun, 2009).

According to D. Kuznetsov (Kuznetsov, Specialist, 2013), a significant increase in the number of anxious young people is observed
during periods of instability of economic and political relations in society. The problem of personality anxiety has always occupied an important place in pedagogical and age psychology and today is well developed (Pavelkiv, 2011). Problems of personal anxiety to a greater extent cover the issues of its psychodiagnostics, psychocorrection and psychotherapy (Astashov, 2019), (Imedadze, 2019), etc. However, the multifaceted research of anxiety as a systemic phenomenon and personality traits (Astashov, 2019), etc. does not cover the full range of problematic issues related to this phenomenon.

Society has undergone complex socio-economic changes for recent decades. Uncertainty and unpredictability of the future causes a state of emotional tension in most citizens. A significant number of young people feel lonely, feel emotional discomfort due to lack of trusting relationships with peers and adults, uncertainty of social position in the team, unformed values, plans for the future (Shportun, 2009). An important circumstance that enhances the relevance of the study of psychological features of anxiety in adolescents is the need to take into account its age specifics to exclude diagnostic errors (Pavelkiv, 2011). Adolescence deserves special attention, because it is the period of formation and fixation of stable psychological properties of the individual. It is the social and scientific significance of the outlined issues that determined the choice of the research topic.

Personal anxiety in adolescence is largely determined by psychological factors (personal, adaptive, motivational), and the correction of personal anxiety in adolescents is possible by combining two areas of work: reducing the effects of psychological factors on its occurrence; development of constructive forms of behavior in psychogenic situations, in conditions of increased anxiety through the use of music therapy (Petrenko, 2013).

The aim of the study is to research the state of anxiety in adolescence after psychocorrection by music therapy.

Materials and methods

A set of interrelated methods was used to solve the tasks and achieve the goal of the study. To perform the first task, the scientific and methodological literature was processed and analyzed. To perform the second task, the psychodiagnostic tools of the study were selected: the scale of self-assessment and assessment of anxiety by Spielberger - J. Khanin; D. Phillips' method of researching school anxiety, method of determining the type of temperament according to G. Eisenko's personal questionnaire; diagnosis of timidity and shyness by E. Ilyin.
The experimental study was conducted on the basis of the Municipal Institution "General School of I-III degrees of Vinnytsia City Council". In total, the study covered 60 students aged 13-14 years (8th grade) and 14-15 years old (9th grade). Of these, 32 students participated in the experimental group, and 28 students formed a control group. All participants were warned about ethical conditions and could withdraw from the experiment at any time.

The work was carried out in 2018 - 2019 and was carried out in two stages. At the first stage, a program to correct the level of anxiety by means of music therapy was developed and implemented (Petrushin, 2000). In the second stage, the effectiveness of music therapy in reducing the level of anxiety in adolescents was tested.

At the preparatory stage, a training program was developed and participants were involved in group work. Preliminary assessment of adolescents' readiness for training work was assessed, the purpose of the training, its tasks and expectations were formulated. The possibility of realization of these tasks for the available period of time was estimated, the concrete purposes of each training employment and local purposes for each exercise were considered. Exercises were selected accordingly. At the first stage, a program to correct the level of anxiety by means of music therapy was developed and implemented. In the second stage, the effectiveness of music therapy in reducing the level of anxiety in adolescents was tested.

1. **Motor relaxation and merging with the rhythm of music.** The method of classes - conscious and sensory perception of musical rhythm, which occurs in movement as one of the most characteristic spontaneous manifestations of life in youth, as well as developing the ability to mentally and somatically obey the rhythm of music and merge with it; a full experience of the feeling of eurythmy and syntony, a harmonious combination of the rhythm of the movements of one’s body with the rhythm of music.

2. **Musical and motor games and exercises.** The purpose of classes - stimulation and concentration, coordination of audiovisual, motor and tactile correction of the person, creation of conditions for communication and interaction in group, communication of the individual with group and group with the individual.

3. **Mental and somatic relaxation with music.** Musical relaxation is a form of passive perception of music, aimed at deep relaxation of a person with mental, somatic or social disorders. One should not focus on the form and content of music, but perceive it as a "sound field", which...
helps the process of relaxation and immersion in the free flow of associations due to the expressiveness and dynamism of music.

This method has three components: psychological, musical and biosonic, which are combined in different variations. Psychological influence is carried out through a vivid imagination of self-suggestion formulas aimed at relaxing the muscles of the body. As a result, the peripheral vessels dilate, heat enters them and the blood content is redistributed.

4. **Vocal expression - singing.** The purpose of classes - stress relief, harmonization of personality, positive mental and somatic effects on respiration, heart rate, digestion. Establishing social contacts.

5. **Playing musical instruments and rhythmic recitation.** The purpose of classes is the realization of a sense of rhythm and the development of creative abilities. Through physical activity, children acquire skills of agility, flexibility, a sense of coordination of motility. Not only acoustic, rhythmic, motor, tactile and visual perception develops, but also attention, imagination, mental somatic stability is maintained.

6. **Receptive perception of music.** The purpose of classes - the removal of internal conflict, problems, helping to stabilize the personality. It is used to relax and stimulate the individual, who in the process of perceiving music becomes an active participant in the figurative action, enriching it with his inner world of experiences. Such classes are aimed at encouraging active perception of one's personality. In their process, the basis of sensory and imaginary associations corresponding to conflict experiences is laid; there is a conscious excitation of the mechanisms of abstraction from personal pathogenic factors. This helps to stabilize the general mental and somatic state.

7. **Pantomime.** The purpose of classes: to promote mental relaxation and creative stimulation, to develop creative imagination motor skills for self-expression, to help relieve mental stress. Tests and pantomime enrich facial expressions. This is a game, not a dance. In order to correct the use of several variants of pantomime.

8. **Motor dramatization to music.** Dramatization is a synthesis of music, movements, dramatic and speech expression. Songs are used, the plot of which can be depicted in the motor elements. For example, a work that celebrates the sea or lake, its latitude, depth, color, turbulence or vice versa - peace, as well as works from the list of indicative musical works for motor relaxation and merging with the rhythm of music.

9. **Musical story.** It is an effective way of mental and somatic stimulation with the participation of movements, dramatization and speech.
All the stories are accompanied by music, which traces the murmur of a stream, and the howl of the wind, and the habits of animals.

10. **Playing with a doll and Bibabo (a character in a puppet show like Parsley).** Playing with a doll and Bibabo helps to express the inner state of the child and the nature of his or her relationship with parents, relatives, friends and social environment (Chub, 2009). This method is used in working with children under 15 years.

11. **Breathing exercises with music.** Proper breathing is crucial for training willpower, general relaxation. Relaxing musical stimuli bring relief, a sense of harmony, balance; human character becomes softer and more plastic.

**Results of Research**

The results of a psychocorrection program to reduce anxiety in adolescents. Psycho-correctional program to reduce adolescent anxiety was carried out in terms of two adolescent groups: 13-14 years (8th grade) and 14-15 years (9th grade). The effectiveness of psychocorrectional work was tested by individual indicators of personal change, identified through analysis of psychological techniques and analysis and generalization of experimental data obtained during the correctional experiment using techniques, as well as observation of behavior and communication of group members in normal conditions (Matokhnyuk, 2019).

The results of the study of the level of school anxiety (according to the method of Phillips) showed significant changes (Fig. 1) (Lemak, Petryshche, 2012).

The results of the first factor "general anxiety at school" shows that the general emotional state of the child associated with various forms of its inclusion in school life has changed (Omelchinko, Kisarchuk, 2009). The results were distributed as follows: a significant percentage of low anxiety was recorded in the experimental group 65,5% (19 students) and in the control group 54,8% (17 students), underestimated anxiety 34,5% (10 students) in the experimental group and 38,7% (12 students) in the control group, increased anxiety was recorded in the control group of 6,5% (2 students), high anxiety was not detected in both groups.
Fig. 1. The results of the study of the level of school anxiety of adolescents in the control and experimental groups according to the method of B. Phillips

The results of the second factor "experience of social stress" were distributed as follows: low anxiety was recorded in 16 people in the experimental group 55,1% and in the control group in 17 people 54,8%, reduced anxiety - in 12 people 41,4% of the experimental group and in 12 persons 38,7% of the control group, increased anxiety was observed in 4 students of the control group 12,9%, high anxiety was not detected in any group.

The third factor "frustration of the need to succeed" showed the following results: low anxiety in the experimental group shows the result of 51,8% (15 students), in the control group 38,7% (12 students), low anxiety was found in 10 students 34,4 % of the experimental group and 11 students is 35,5% of the control group, increased anxiety was recorded in the experimental group 13,8% (4 students) and in the control group 19,3% (6 students), high anxiety was detected in 2 students 6,5 % of the control group.

The fourth factor is "fear of self-expression" (Horny, Khotenchan, 2014). The results of this factor show that low anxiety was found in 17
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...subjects (58.7%) of the experimental group and 11 (35.5%) of the control group, low anxiety was detected in 10 students, 34.4% of the experimental group and 13 students is 41.9% of the control group, increased anxiety was recorded in the experimental group 6.9% (2 students) and in the control group 16.1% (5 students), high anxiety was detected in 2 students 6.5% of the control group.

Analyzing the fifth factor - "fear of the situation of testing knowledge" the results were as follows: low anxiety - in the experimental group 69.0% (20 students), in the control group 18 students (58.1%), low anxiety – 24.1% (4 students) in the experimental group and control group 22.6% (7 students), increased anxiety – 6.9% (2 students) of the experimental group and 19.3% (6 students) of the control group, high anxiety on this factor is not detected.

The sixth factor is "fear of not meeting the expectations of others" (Horny, Khotenchan, 2014). Low anxiety in the experimental group showed a result of 65.5% (19 people), in the control group 15 people (48.4%), low anxiety in the experimental group – 27.6% (8 students), in the control class 38.7% (12 students), increased anxiety was detected in the experimental group of 6.9% (2 students), in the control class of 4 students (12.9%) of the subjects.

The seventh factor studied was "low physiological resistance to stress." Low anxiety in the experimental class is 48.3% (14 students), in the control class 41.9% (13 students), low anxiety in the experimental class – 41.4% (12 students), in the control class 38.7% (12 students), increased anxiety – 10.3% (3 students) of the experimental group and 6 students 19.3% of the control group, a high level in this factor was not detected.

As far as the eighth factor we studied is concerned "problems and fears in the relationship with teachers" the results were distributed as follows: low anxiety in the experimental group was found at 72.4% (21 students), in the control class 58.1% (18 students), underestimated anxiety in the experimental class is 24.1% (7 students) and in the control class 32.2% (10 students), increased anxiety was recorded in the experimental group 3.4% (1 student) and in the control class 9.6% (3 students).

After analyzing the results of the method "Assessment of the level of school anxiety by Phillips", we can conclude that in general the level of anxiety after correctional work with adolescents has changed. The low level of school anxiety is generally in the lead. The high level of school anxiety in the experimental group was not detected, in the control group it decreased significantly (Shevchenko, 2006).
After psycho-correctional work, adolescents with low levels of anxiety have sufficient self-control, self-discipline, adequate self-esteem. In relations with others, they are proactive, freely defend their own position in life, resolute in their actions and deeds, and set up for success. They perceive changes in life positively.

The next stage of the study was to determine the level of anxiety according to the method of C. Spielberger - J. Khanin (Fig. 2) (Lemak, Petrishte, 2012).

![Fig.2. The results of the study of reactive anxiety in adolescents of the control and experimental groups according to the method of C. Spielberger - J. Khanin](image)

This technique studies reactive and personal anxiety. Examining reactive anxiety, the results of the study showed that in two groups the low level of reactive anxiety leads.

The results of the study show that in the experimental group the low level of reactive anxiety is 75,9% (22 students), and in the control group recorded 61,3% (19 students), the average level of reactive anxiety was recorded in the experimental group of 7 students 24,1%, and in the control group 35,5% (11 students). The results of the study show a high level of reactive anxiety in the control group. In 1 student (3,2%) of the control group there is a high level. This means that there is tension, anxiety, nervousness from certain situations, which has a negative effect on performance. It should be emphasized that after psycho-correctional work with adolescents, the results of reactive anxiety have changed. The number of subjects with low levels of anxiety has increased.
Adolescents with a low level of personal anxiety are characterized by sufficient self-control, self-discipline, adequate demands on themselves (Fig. 3).

![Bar chart showing personal anxiety levels in experimental and control classes.]

**Fig. 3.** The results of the study of personal anxiety of adolescents in the control and experimental groups according to the method of Ch. Spielberger - Y. Khanin

In relations with others, they are proactive, freely defend their own position in life, resolute in their actions and deeds, and set up for success. They perceive changes in life positively. The figure shows that schoolchildren are dominated by low and medium levels of personal anxiety. A low level of personal anxiety was recorded in 19 students of the experimental class (65.5%) and in 16 students of the control group 51.7%. This means that the majority of students in both classes have a positive perception of changes in life, defend their position, are set up for success, adequately assess themselves and their capabilities.

The next step was to study the self-assessment of mental states of adolescents after psychocorrectional work using the method of G. Eisenko (Fig. 4) (Lemak, Petrishte, 2012).
**Fig. 4.** The results of the study of mental states of adolescents in the control and experimental groups according to the method of G. Eisenko "Self-assessment of mental states"

The diagnosis showed the following results. The first step in our study is rigidity. This destructive condition is characteristic of 75.8% (22 students) of the experimental group and 64.5% (20 students) of the control group. This means that the subjects are able to show stability in the interests of certain attitudes, in which the opinion is defended, an active position is established. They are practical, neat, true to their positions and principles, resistant to stress, in the form of disobedience to the environment.

In second place of our study is frustration. This is a state when the adolescent experiences a negative emotional state, when on the way to meeting the need the subject encounters unexpected obstacles that can be eliminated. According to the study, this figure reached 24.2% in the experimental group and 19.3% in the control group. Researchers in this category sometimes have a strong need to remain dissatisfied.

Aggression was detected only in the control group in 9.7% (3 students). They are characterized by emotional rudeness, resentment, both against peers and adults in the face of impudence and cynicism, especially if this cynicism is presented under the guise of the moral principle "the strong survive, the weak die out."
Anxiety was detected in 6.5% (2 adolescents). Masking their anxiety, hiding it from adults and peers and even from themselves, they themselves do not know what they need, cannot ask for help, provoke a negative attitude towards others. Such children do not change their habits, they stubbornly stand in their positions, defending interests and tactics in everyday life. Such people are characterized by increased emotional sensitivity, vulnerability, for a long time retain the resulting emotional state. The results of the research indicate the presence in the sample of respondents with a high percentage of reluctance to get closer on an emotional basis, a high level of anxiety and frustration.

Therefore, it is advisable to check for the presence of such a barrier as shyness and timidity. For this purpose, we use the method of E. P. Ilyin "Shyness and timidity" (Fig. 5) (Lemak, Petrishte, 2012).

**Fig. 5.** The results of the study of adolescents in the control and experimental groups by the method of "Shyness and timidity" E. P. Ilyin

The level of emotional state has changed. A low level of emotional state is leading in this diagnosis. In the experimental group, this result is 19 students 65.5%, in the control group 17 students, 54.8%. This means that after conducting psycho-correctional work, the subjects do not feel fear of failure, they have increased the number of friends, almost no anxiety. They feel parental support (Chub, 2009).
Among the surveyed students, 34.5% (10) of the experimental group and 45.2% (14) of the control group belong to the average level of emotional state. This category of children rarely participates in fun games and competitions that require interaction with other children, rarely engage in sports, dance, music or theater. A high level in the repeated study was not recorded.

Discussion and Conclusions

The results of the study show, however, that conducting psychocorrectional work with music therapy is effective in the work of a psychologist. Overcoming anxiety in adolescents by means of music therapy can be carried out in three directions: learning techniques for mastering their emotional state; empowerment by developing the skills needed to perform successfully; restructuring of self-esteem and the structure of adolescent motives. Music allows you to change the anxiety on a deep, subconscious level and avoid what is not so easy for a child or even a teenager to cope with. Parents should be involved in such work, and they are given the task to talk at home about situations that once caused their children fears, anxiety, and which they still overcame. Empowerment and the acquisition of new skills, abilities allow you to successfully overcome anxiety.

Conclusions

The developed and tested program of correction of the level of anxiety by means of music therapy shows a number of positive changes in indicators of personal and motivational factors of anxiety, namely: growth of self-esteem and responsibility, increase of self-esteem, which in turn reduced the difference between this indicator and level of claims, changing the attitude to the past, present and future towards the predominance of the realistic type, changing the distribution of affiliation motives and achieving in favor of the motif of thresholds acceptance and the pursuit of success, respectively. The effectiveness of the corrective effect was manifested in the change in the distribution of subjects by levels of anxiety. There has been a halving of the high level of personal anxiety, a number of positive changes in the indicators of personal and motivational factors of anxiety. The results of our study show, however, that the conduct of psycho-correctional work by means of music therapy is effective in the work of a psychologist. Therefore, the prospect of further research is the study of various exercises and techniques of art therapy and its application for different age groups.
References


competence personalities (genesis of ontological development), Odessa, 527. 

doi:10.18662/rrrem/184


