Shaping a healthy lifestyle attitude in adolescents in extra curricular learning

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Abstract—The article aims to give a theoretical justification and experimentally evaluate the effectiveness of the program promoting positive attitudes toward a healthy lifestyle in adolescents in the context of extracurricular education.

Research methods. The leading research method is a pedagogical experiment aimed at assessing the attitude to a healthy lifestyle and behavior in adolescents. To measure the adolescents’ attitude, the following questionnaires were used: “Let’s Be Healthy!” developed by Shishkovets and “What Stops Me from Living a Healthy Lifestyle” developed by Purin.

Results. The formative stage of the experiment is an experimental program which employed different kinds of group work to promote healthy lifestyle behavior among adolescents: action workshops, training sessions, round table discussions. The qualitative and quantitative analyses of the results of the experimental verification of the program have shown an improvement in the healthy lifestyle attitude in adolescents. The Wilcoxon signed-rank test, a method of mathematical statistics, was used to verify the validity of the quantitative data obtained in the experiment.

Conclusion: the findings have proved the effectiveness of the program which uses different kinds of group work to improve adolescents’ attitude to a healthy lifestyle. The materials of the article can be used to upgrade the educational process in the system of extracurricular education.

Key words: attitude, healthy lifestyle, development, personality, adolescent.

I. INTRODUCTION

One of the strategic tasks of the information society is to maintain and promote the public's health. However, it is impossible to imagine the modern lifestyle without gadgets which have a significant influence on the mental and physical development of people, and their health condition as a whole. Young people in their teens are a high-risk group; they are prone to free behavior and personal instability which, in turn, is affected by various online communities an adolescent has an active contact with. This can hardly contribute to the development of an essential human need for a healthy lifestyle which is the style of behavior that benefits and improves one’s health and well-being.

The relevance of the topic lies in the contradiction between the requirements of the state regulatory documents (the RF Federal Law on Education in the Russian Federation, the Law on Basics of Health Protection of the Citizens in the Russian Federation, and the Law on Physical Culture and Sport in the Russian Federation) which set clear guidelines for organizing work to promote a healthy lifestyle, and the content of activities in educational organizations which fails to meet the specified requirements. This contradiction can be resolved by means of an educational program which is developed taking into account the requirements of the regulatory documents.

The aim of this study is to give a theoretical justification and experimentally evaluate the effectiveness of the educational program promoting positive attitudes to a healthy lifestyle in adolescents.

II. METHODOLOGY

The study was conducted in the municipal children’s additional skills and activities training centre called House of Children's Creativity “Radost” which is situated in Oparino, Kirov Region. 12 teenagers between 12-14 years of age took part in the experiment. The small size of the sample group is explained by the fact that the settlement of Oparino is small and this organization works in the sphere of extracurricular education so it is attended by willing children only.

Research methods: studying psychological, pedagogical and valeological literature; empirical methods: pedagogical experiment, questionnaire; ranking, analysis and evaluation of the results.

The analysis of psychological, pedagogical and valeological literature has identified two different approaches to the process of promoting a healthy lifestyle. The objective of the first traditional approach is to cultivate the socially approved behavior, i.e. refusing from smoking and drinking alcohol, increasing physical activity, limiting saturated fats and salt in diets, maintaining one’s body weight as recommended [6]. The second approach is quite different; a
healthy lifestyle is considered to be a behavior pattern that allows a person to improve the quality of life and increase the lifespan [14, 15, 1]. According to Gundarov and Palessky, every person can choose his own path, his own lifestyle. They argue, “A healthy lifestyle, basically, cannot and should not be identical. Any behavior should be considered healthy if it leads to achievement of the desired healing result.” [14, p. 26].

As part of the process of promoting a healthy lifestyle, the second approach seems to be more relevant as it focuses on improving overall health. Health is determined by an individual’s lifestyle when an individual is proactive in relation to his own health.

Accordingly, it is necessary to start shaping healthy lifestyle attitudes and behavior from childhood to develop a habit of taking care of one’s own health as the main value, so that this kind of attitude becomes natural in the future.

Adolescence is a critical period in terms of the formation of values and life guiding principles of an individual. An empirical study by Fomina and Orlov confirms that the low level of self-regulation and self-control in adolescents, lack of responsible behavior along with lack of knowledge about bad habits can become internal psychological conditions for developing distorted life principles including a positive attitude towards alcohol and drugs [4].

It is possible to prevent the development of distorted life principles in adolescents by building a healthy lifestyle attitude and taking into account the peculiarities of this age: a new social role in the adult world, a high need for being recognized and respected by adults [3].

The health preservation attitude is a psychological predisposition of an individual to be active in regard to maintaining and increasing one’s own health preservation potential [13].

Russian researchers suggest a variety of ways to develop a positive attitude to a healthy lifestyle among adolescents: programs promoting healthy lifestyle behavior, health education technologies [8, 11]; creating the sociocultural environment supporting physical culture, health and sports activities [10]. The researchers who explore this problem recognize the necessity of new forms of working with adolescents.

Foreign researchers also investigate various aspects of health related behavior. The study by Yardley, Morrison, Bradbury, and Muller analyzes the ways of promoting a healthy lifestyle among adolescents by involving them in professionally-related activities that prepare them for future work [18]. Condon and Coulson developed a person-based computer software aimed at improving healthy eating habits of adolescents [2]. The software educates adolescents about health issues, motivates them to refuse from unhealthy behavior. Other scientists suggest making use of the gaming addiction which is characteristic of all modern adolescents to support healthy lifestyle behavior [5, 16, 17].

Thus, both domestic and international researchers are interested in solving the problem of how to promote healthy lifestyle habits and behavior among adolescents. The current research focuses mostly on identifying the cause-and-effect relation in development of healthy habits and a healthy lifestyle in adolescents.

To evaluate the adolescents’ attitude to healthy lifestyle behavior, the following questionnaires were used: “Let’s Be Healthy!” developed by Shishkovets [12] and “What Stops Me from Living a Healthy Lifestyle?” developed by Purin [9].

“Let’s be healthy!” questioning was carried out to identify adolescents’ individual peculiarities of maintaining a healthy lifestyle and to look into their attitude to learning the healthy lifestyle basics.

In the study, the attitude towards a healthy lifestyle was considered to be of a high level if it contained the following components: careful attitude to one’s health, mature and active mechanisms for preserving and improving one’s health; understanding the meaning of life; correlation and interaction of all healthy lifestyle components. The attitude towards a healthy lifestyle was considered to be of a moderate level if it was characterized by only some healthy lifestyle components while the other components were manifested at a less degree: underdeveloped mechanisms for preserving and improving one’s health; a sufficient level of adaptation to the environment; unstable work efficiency. The attitude towards a healthy lifestyle was considered to be of a low level if a few healthy lifestyle components were absent and an adolescent was not willing to adopt them; disregard for one’s health and unwillingness to preserve and improve it; a low level of adaptation to the environment conditions, and poor work efficiency.

III. DISCUSSION OF THE RESULTS

In the course of the ascertaining experiment, the respondents were asked to complete the “Let’s be healthy!” questionnaire. The analysis of the responses has shown the following: the healthy lifestyle attitude of 34% of adolescents is of a high level; the attitude of 58% is of a moderate level, and 8% have a low level of the healthy lifestyle attitude. To determine what prevents adolescents from living a healthy lifestyle, “What Stops Me from Living a Healthy Lifestyle?” questionnaire survey was conducted. The respondents were asked to give an appropriate response to the statement: “What prevents me from living a healthy lifestyle is...” There were 12 responses to choose from:
1. My health condition.
2. Family issues.
3. Weather and climate.
4. Lack of free time.
5. Free sale of cigarettes, beer and alcohol.
6. Lack of attention of the homeroom teacher to me.
7. Lack of attention of the PE teacher to me.
8. Lack of attention of the medical staff of the school to me.
9. Lack of attention to myself from the Headmaster.
10. Bad company outside school.
11. Bad company of schoolmates.
12. My own disregard for healthy living rules and standards

The obtained data have made it possible to draw the following conclusions: the main reasons that prevent adolescents from living a healthy lifestyle are lack of free time, bad company outside school, bad company of schoolmates, disregard for healthy living rules and standards. “What Stops Me from Living a Healthy Lifestyle?” questionnaire survey has showed that the reason identified as “bad company” should be paid special attention to. All teenagers seem to have a low level of interference, i.e., they
are able to cope with the existing (minor) problems in maintaining a healthy lifestyle independently.

At the next stage, an experimental program was tailored to organize the activities to build up a positive attitude to a healthy lifestyle in adolescents. The purpose of the program was developing a positive attitude to a healthy lifestyle. The tasks of the program were to create a positive and trusting atmosphere in the group of teenagers; to provide them with relevant information on the mechanisms of development of drug and alcohol abuse disorders; to educate the teenagers about what happens to a person who drinks alcohol and uses drugs; to build high self-esteem; to develop decision-making skills and the ability to say ‘no’ when necessary; to stand up for oneself and for one’s actions. The content of the program is presented in the topic schedule (Table 1).

Table 1. Topic Schedule

<table>
<thead>
<tr>
<th>Organizational form/Topic</th>
<th>Task</th>
<th>Duration (hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roundtable discussion</td>
<td>To expand the concept of healthy living. To provide information on</td>
<td>2</td>
</tr>
<tr>
<td>“Health is My Choice”</td>
<td>healthy eating habits.</td>
<td></td>
</tr>
<tr>
<td>Training session № 1</td>
<td>To develop a negative attitude to bad habits.</td>
<td>1.5</td>
</tr>
<tr>
<td>“Bad Habits, Mischievous</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavior or Immature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Character?”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training session № 2</td>
<td>To develop a lasting negative attitude to bad habits.</td>
<td>1</td>
</tr>
<tr>
<td>“Say No to Bad Habits!”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action workshop “We</td>
<td>To teach the teenagers to treat people who have a substance abuse</td>
<td>2</td>
</tr>
<tr>
<td>are against Smoking”</td>
<td>problem as people in trouble.</td>
<td></td>
</tr>
<tr>
<td>Training session № 3</td>
<td>To teach the teenagers to display their attitude to bad habits in</td>
<td>1.5</td>
</tr>
<tr>
<td>“My Choice”</td>
<td>the conditions of intra-group support.</td>
<td></td>
</tr>
<tr>
<td>Training session № 4</td>
<td>To develop a positive attitude to a healthy lifestyle.</td>
<td>1.5</td>
</tr>
<tr>
<td>“I Choose a Healthy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lifestyle”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action workshop “Say</td>
<td>To give information on how bad habits influence our health.</td>
<td>4</td>
</tr>
<tr>
<td>‘Yes’ to Health”</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training session № 5</td>
<td>To teach how to design your future life along the lines of healthy</td>
<td>1</td>
</tr>
<tr>
<td>“My Life is a Healthy</td>
<td>living.</td>
<td></td>
</tr>
<tr>
<td>Life”</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The experimental program was implemented from October to December 2018. After the experiment had been over, the teenagers were offered the same questionnaires to evaluate the changes in their attitude to a healthy lifestyle. The results of “Let’s Be Healthy!” questionnaire are as follows: 58% of the participants showed a high level of the attitude; 42% had a moderate level; 0% had a low level. The comparative representation of the results of “Let's Be Healthy!” questionnaire is given in Fig. 1.

Figure 1. The level of the attitude to a healthy lifestyle before and after the experimental program.

The findings of the ascertaining and control experiments demonstrate that the level of the attitude to a healthy lifestyle in adolescents increased: the number of respondents who had a high level increased by 24%, a moderate level – by 34%, the third group of a low level decreased to zero.

The Wilcoxon signed-rank test, a mathematical method of statistics, was used to verify the validity of the quantitative data obtained in the experiment.

The first column of the table below represents the data received before the experiment, and the second column shows the data received after the experiment.

Taking the zero shift into account we get the following:

Table 2. The Wilcoxon signed-rank test

<table>
<thead>
<tr>
<th>№</th>
<th>Before the experiment</th>
<th>After the experiment</th>
<th>Change (L_after – L_before)</th>
<th>Absol value of the change</th>
<th>Rank orderi ng of the change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>34</td>
<td>2</td>
<td>8</td>
<td>8</td>
<td>10.5</td>
</tr>
<tr>
<td>2</td>
<td>38</td>
<td>6</td>
<td>12</td>
<td>8</td>
<td>10.5</td>
</tr>
<tr>
<td>3</td>
<td>38</td>
<td>2</td>
<td>4</td>
<td>4</td>
<td>8.5</td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>6</td>
<td>4</td>
<td>4</td>
<td>8.5</td>
</tr>
<tr>
<td>5</td>
<td>38</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>6</td>
<td>36</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>7</td>
<td>32</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>8</td>
<td>26</td>
<td>8</td>
<td>12</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>9</td>
<td>44</td>
<td>6</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>10</td>
<td>42</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>11</td>
<td>42</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>4.5</td>
</tr>
<tr>
<td>12</td>
<td>42</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

The rank sum of atypical changes: 1
The empirical $T$ values ($T_{emp}$) are within the significance zone, i.e., the results can be regarded as representative.

The findings of the second questionnaire (What stops me from Living a Healthy Lifestyle) show that the interference level was still low, but the reasons why teenagers refuse from living a healthy lifestyle have changed. The main argument of adolescents shifted towards lack of free time, which indicates awareness-raising, but the teenagers did not yet show an active attitude to the existing problems, they did not try to solve them.

Thus, the qualitative and quantitative analyses of the results of the experimental verification of the program have shown that the attitude of the teenagers to a healthy lifestyle turned more positive.

**IV. CONCLUSION**

According to the psycho-pedagogical and valeological literature, a healthy lifestyle cannot be reduced to absence of bad habits, a right work life balance, and doing enough exercise. It is a more complicated concept which shapes a person’s attitude to himself, to other people, to life as a whole; it can influence the way people feel about life, define their life goals and values. The key component of the concept of healthy living is that a person is active and ‘creates’ his own health. Active creation is the ability to make use of all the components of health (physical, mental, social and spiritual ones) for one’s own benefit, to master wellness and health-promoting techniques.

Adolescence is a controversial and critical period; it is a period of transition from childhood to adulthood. Whether the future life and professional activities of a young person will be successful will depend on how efficiently we are in shaping the teenagers’ habits and attitudes to a healthy lifestyle. The experimental program tested in the context of extracurricular education has produced positive results in shaping the adolescents’ attitude to a healthy lifestyle. The program was based on the use of such group forms of training as action workshops, training sessions, and round table discussions.

### REFERENCES


