

Program Providing Support for Adolescents with High-Level Video Game Addiction



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Abstract: This article describes the program of psychological and pedagogical support for preteens with a high level of video game addiction. The authors have determined tasks and principles of this study, revealed the structure of the above-mentioned prevention program for preteens and described its stages and conditions, which allows reducing the negative effects of the existing video game addiction and the risk of its aggravation.

Keywords: Addiction, Adolescents, Computer, Game, Preteens, Questionnaire, Subjectivity, Video Game Addiction.

I. INTRODUCTION

The new socio-economic environment that is being formed in Russia as a result of market transformations places more demands on individuals and their socio-positive integration into society [1]. This requirement is especially relevant for children and teenagers who are deprived of values-based guidelines and can be influenced by ever-increasing video game addiction. Therefore, the interaction between adults and children should form basic knowledge and skills that will allow the latter to focus on creative actions and steadily show their positive personality traits [2], [3].

Video games do not always contribute to the development of cognitive qualities. Furthermore, too much interest in video games can grow into video game addiction [4]-[8].

The fight against video game addiction is recognized as a relevant objective at the state level. The initial data of the all-Russian monitoring has demonstrated that the number of children and adolescents aged between 7 and 14 years with different degrees of video game addiction varies from 2% to 10%.

The current situation requires an urgent search for effective methods and tools to prevent video game addiction based on the personality-oriented approach to each child. Nowadays, it is especially important because video game addiction unlike other types of addiction (for example, alcohol and drug abuse) forms not in a socially unfavorable environment but in everyday life. Almost every teenager has access to a computer; therefore, its misuse can cause video game addiction in apparently trouble-free children.

To exclude video game addiction from the axiological consciousness of preteens, it is necessary to establish a long-term comprehensive prevention system to develop the child's personality as a whole. Only the integrated approach with due regard to psychological patterns influencing the child's personal development can become the most effective method of fighting against video game addiction.

This approach should be based on a unified scientific and practical educational platform combining the efforts of both adults (parents, teachers, psychologists, social educators, medical workers) and children.

The prevention of video game addiction among preteens is particularly significant as a modern child grows up and develops their personality in a tense social environment. The life of younger adolescents involves various emotions associated with difficult relations with parents or other family-related problems, the influence of the youth subculture, mass media, the lack of material wealth in the family, etc. [9]-[12]. Consequently, children spend their leisure time in conformity with their interests, needs and opportunities. Thus, psychologists should develop a psychological and pedagogical program, whose objective is to prevent a pathological interest in video games, organize the activity of preteens, help children cognize the surrounding world in a positive and constructive way [13], [14] and, if possible, minimize the negative social impact caused by video games.

The personality-oriented approach based on the age and individual characteristics of a forming personality, its uniqueness and individuality, which are the most conducive to the formation of the child's self-concept, and determining the developmental prospects of their personality and future adult life strategies is crucial for solving the above-mentioned tasks (D. Graham, V.V. Davydov, L.V. Zankov, H. Kemp, R. Campbell, V.S. Mukhina, L.F. Obukhova, K. Rogers, N.Yu. Sinyagina, B. Spock, I.S. Yakimanskaya, etc.).

II. PROPOSED METHODOLOGY

A. General Description

The addictive behavior of schoolchildren formed as a result of interaction with objects that can cause addiction has not been comprehensively addressed by educational institutions since there is still no psychological and pedagogical support for solving this problem either in the scientific or methodological aspect; therefore, there are no specialists who can assist schoolchildren in resolving the above-mentioned issue.

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To prevent the aggravation of video game addiction, children should purposefully form personal resistance to frequent game playing and a sense of proportion when interacting with a computer [15]-[17].

B. Algorithm

To determine the strategy for counter-balancing video game addiction or its primary prevention, it is necessary to identify the totality of functions common to each stage in the formation of addictive behavior and evaluate them from the dominant position.

The psychological understanding of video game addiction enables to implement preventive and readaptative measures aimed at strengthening its weak links [4], [17]-[20]. Within this framework, the therapy results depend on the integral approach comprising the use of some therapeutic complexes (psychotherapeutic, psycho-corrective, etc.). At the same time, it is important to comply with the principles of strict phasing, comprehensiveness and differentiation and consider the structure of one's personality, age, the duration and severity of video game addiction.

A prevention program aims at implementing systemic psycho-correction, strengthening the mental health and well-being of adolescents, developing and maintaining factors of personal stability and growth.

While planning classes within the program, we paid special attention to the development of the above-mentioned qualities in adolescents at risk group. One should understand that adulthood is not associated only with age but is the result of resolving certain problem situations. The main feature of moving into adulthood (adolescence) is an array of problems that ensure personal development [11], [12]. We can determine the following tasks of growing-up: attitude to one's body, attitude to one's face, attitude to one's parents, attitude to one's group, attitude to one's peers of the opposite sex, attitude to one's peers of the same sex, attitude to pain, attitude to oneself, attitude to the death, attitude to the future and attitude towards religion.

The program objectives are as follows:

1. To reasonably inform children about the dangers that they may face;
2. To encourage and support schoolchildren in their appeal to inner feelings and desires. To form self-observation skills and develop the awareness of their mental states;
3. To form self-regulation skills, improve one's mental state in a natural way, prevent fantasy atrophy and develop creativity;
4. To recognize one's experience of addictive behavior (one of the valuable achievements is the experience of danger, the possibility of becoming addicted, a sense of an "edge" and control over it);
5. To develop the skills of efficient interaction with people, the ability to establish trust-based relations;
6. To form an active attitude towards one's living space (the organization of one's life).

This work results in developing and growing up of children (younger adolescents), expanding their sphere of interests, self-awareness and personality traits, forming their willingness to independently make a responsible decision, the ability to see and find a way out in a difficult situation.

When planning a program for preventing video game addiction among preteens, we considered the following features of its formation:

Consistency

Considering this principle, we should highlight two aspects of its understanding. Firstly, it is necessary to analyze the preventive measures that are used in countries that faced this problem a long time ago. Referring to effective prevention models and relying on their pros and cons, it becomes easier to form a new system of preventive measures. Secondly, compliance with this principle implies the coordination of the preventive measures carried out by different educational institutions.

Continuity

Preventive measures should not be limited to the sphere of school education but cover as many aspects of the child's life as possible. Each age stage should be associated not only with the transition to a new social level but also with the necessary set of adaptive skills. Nowadays, preventive measures mostly focus on adolescents and young people (range from 12-13 to 16-17 years old). Other age groups are not included in the existing prevention program or are subject to extremely ineffective methods.

In this case, the continuity of preventive work is understood as the use of preventive measures throughout the individual's life, stepwise increase in adaptive skills and the consideration of the experience gained earlier.

Systematicity

Preventive measures should be carried out systematically, therefore they should be included in a system where each measure is consistent with another, does not contradict it and results from it. The inconsistency of the measures applied and their misinterpretation can undermine the entire prevention system. It is possible to introduce a certain system of penalties and rewards, the use of which is associated with the absence or presence of the desired form of behavior.

C. Program

Our program for preventing video game addiction involves working with the following target groups:

1. Work with pedagogical workers (teachers and school psychologists)

The introduction of a school psychologist to a new function of preventing video game addiction among younger adolescents.

Our screening based on the questionnaire "The level of video game dedication" for younger adolescents to divide the respondents into the main group (healthy children) and children at risk group according to the survey results. Differentiated preventive work with the latter.

The in-depth individual diagnosis of children at risk group.

2. Preventive work with parents

Improving the psychological and pedagogical competence of parents through parental meetings and seminars. Individual family counseling for parents of pathological computer players. Improving the computer literacy of parents.

3. Psychological and pedagogical work with students

3.1. Educational and pedagogical work with students

At this stage, it is necessary to conduct developmental classes with groups of students aimed at promoting a healthy lifestyle, developing their communicative and behavioral skills, informing children about the consequences of video game addiction, forming the values of a healthy lifestyle, general knowledge, self-attitude and attitude towards others. Determining the involvement of students in the above-mentioned problem, i.e. screening (a questionnaire on the problems of video game addiction).

Organizing leisure for improving individual abilities of students and meeting their needs for self-realization, including the development of hobby groups and electives in educational institutions.

Developing a system of health promotion among children to master self-regulation skills and obtain positive emotions.

Conducting various events (role-playing games, discussions, round-table discussions, talk shows, competitions, performances, etc.) for counteracting psychoactive substances and forming a healthy lifestyle.

Organizing the psychological and pedagogical support, correction and rehabilitation of younger adolescents who can easily fall victims to video game addiction.

3.2. Individual psychological counseling for students

The psychological counseling of students aims at helping younger adolescents who feel the need to optimize their mental activity, overcome unpleasant mental states and difficulties. The goals of counseling are to adjust (correct) and ensure growth or development.

Psychologists work with students at risk group on an individual basis, i.e. they discuss burning issues, recreate certain situations and analyze personal stories which led to the feeling of psychological discomfort.

To maximize the effectiveness of such a prevention system, the following principles should be implemented:

All-purposefulness, i.e. the modified system of preventive measures. For example, the unity of risk factors for all types of deviant behavior ensures the creation of conditions for preventing such behavior in general regardless of its form (addictive or suicidal behavior).

Constructivity, i.e. the lack of narrow-minded deployment of a prevention system. The constructive prevention system is based not on the principle: "Do not do bad things" but on the principle "Do good things".

The advanced nature of impacts, i.e. the anticipation of negative attitudes, which allows developing positive (desired) behavioral patterns.

Methodological tools of the program include role-playing games, psycho-gymnastic games, discussion games, emotional-symbolic methods, relaxation methods and cognitive methods.

The program for preventing video game addiction among adolescents is developed for one academic year in secondary school, classes will be held once a term with students' parents and twice a term with the students themselves. The duration of such lessons varies from 30 minutes to 1 hour depending on the wishes of children or parents.

III. RESULT ANALYSIS

The experiment comprised 146 people with a high level of video game addiction. Seventy-four people were included in the experimental group with classes held under the program and 72 people formed the control group where such classes were not conducted.

The evaluation of the program of psychological and pedagogical support was based on the changes in average indicators obtained throughout the study of individual personality traits of younger adolescents.

During the experiment, we used the same methods as in the diagnostic research earlier (Table I).

Table- I: The dynamics of individual personality traits of younger adolescents in the experimental group after molding impacts

Individual personality traits	Experimental group		Control group	
	Before	After	Before	After
Self-assessment indicators				
Confident	70.6	73.5	69.5	70.2
Sociable	48.8	59.6	50.3	49.4
Communication skills				
Risk appetite	0.72	0.84	0.69	0.63
Subjectivity indicators				
Self-reflection awareness	2.1	2.7	1.9	2.1
Freedom of choice and responsibility	1.9	2.6	1.8	1.7
Understanding and accepting others	1.9	3.1	2.1	2.3
Self-development awareness	2.3	3.2	2.4	2.3
Determined self-control				
	8.5	9.7	8.2	8.3

The results obtained have proved that the experimental group experienced the statistically significant positive dynamics of communication skills. This fact indicates that younger adolescents have a desire to make friends, they are better at navigating in new conditions and more willing to expand their circle of acquaintances. They even express a strong desire to engage in social activities and help their loved ones, friends. Adolescents have become more initiative in communication, tried organizing social events and made independent decisions in difficult situations.

There have been more respondents in the experimental group with different degrees of subjectivity indicators:

- Self-reflection awareness ($\varphi=2.723$ at $p<0.001$);
- Awareness of free choice and the corresponding responsibility ($\varphi=2.61$ at $p<0.01$);
- Understanding and acceptance of others ($\varphi=3.143$ at $p<0.001$);
- Self-development awareness ($\varphi=3.231$ at $p<0.001$).

The final assessment demonstrated positive dynamics in the intensity of volitional indicators of younger adolescents in the experimental group.

The number of the respondents having high-level indicators of volitional potential ($\varphi=8.50$ at $p<0.01$) has increased in the experimental group. At the same time, the number of the respondents in the experimental group with low-level indicators of volitional potential has decreased ($\varphi=9.70$ at $p<0.01$). These changes indicate that the number of younger adolescents seeking to achieve their goals has increased.

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The number of the respondents in the experimental group with high-level risk appetite has decreased. This fact indicates a more thoughtful and rational process of decision-making in various life situations.

IV. DISCUSSION

A comprehensive program of psychological and pedagogical support for younger adolescents counter-balancing negative effects of the existing video game addiction and reducing the risk of its aggravation should be represented by the unity of the cognitive, emotional and behavioral components for three groups of subjects: pedagogical workers (teachers, psychologists), students' family and students themselves.

Each stage of this program considers the cognitive (informative), emotional (emotional-evaluative) and behavioral components of the human psyche.

Moreover, each component includes two sections: the culture of using gaming technologies, individual personality and social personality features of students.

1. Cognitive component (informative).

1.1. Students, their parents and teachers form realistic ideas about the phenomenon of video game addiction, its causes, behavioral manifestations and consequences for the developing personality of younger adolescents. In the course of classes, program participants discuss information about the problems preteens may face during long computer sessions. The emphasis in work with adults is placed on the recognition of video game addiction as a problem and the understanding that the uncontrolled use of information technology by adolescents can cause computer addiction. However, this dependence can be balanced in the process of interacting with competent adults and transformed into a healthy attitude towards IT opportunities.

1.2. Developing ideas about individual personality and socio-psychological features of younger students. Such classes aim at developing self-reflection, better understanding of one's uniqueness and the value of other people: to learn methods of introspection, individual psychological characteristics (including intellectual and communicative abilities, special relationships with adults and peers), one's abilities and limitations in interaction with other people, spheres of interest, opportunities and ways of self-development and self-realization.

2. Emotional component (forming an emotionally positive attitude to preventing and overcoming video game addiction).

2.1. Attitude to video game addiction. Forming a persistent negative attitude towards video game addiction based on the understanding of its harmful consequences together with the development of a conscious positive attitude to a healthy lifestyle.

2.2. Forming adequate and positive self-conception on the basis of a realistic self-image, the development of a positive attitude towards others considering their self-images as part of a social group in family or school, an increasing interest in communication with peers and adults and joint activity characterized by growing intensity and emotional-positive strength revealed during business games, discussions and

trainings, the preference to peers as communication partners rather than virtual characters.

3. Behavioral component (strengthening the bonds that connect children with society, the formation of effective communication skills).

The behavioral component integrates knowledge and skills into a specific behavioral act, which is more or less the objective of preventive measures.

3.1. Developing and discussing rules for using computers and computer games, their implementation in the daily routine.

3.2. Forming self-discipline and self-control, developing one's ability to set goals and predict the results of the actions undertaken, as well as planning one's time. Developing skills to establish and maintain psychological contact in the process of communication. Recognizing and removing internal barriers that hinder effective communication. Developing conflict resolution skills and abilities to predict the other's behavior to find common topics for interaction.

The above-mentioned aspects, including informing, developing effective communication skills (and the associated experience of positive self-perception) and strengthening the bonds that connect children with society, form the conceptual basis of each program lesson.

Thus, the model of forming psychological resistance to video game addiction in early adolescence can be presented as a combination of three modules aimed at developing and stabilizing resistance factors (Fig. 1):

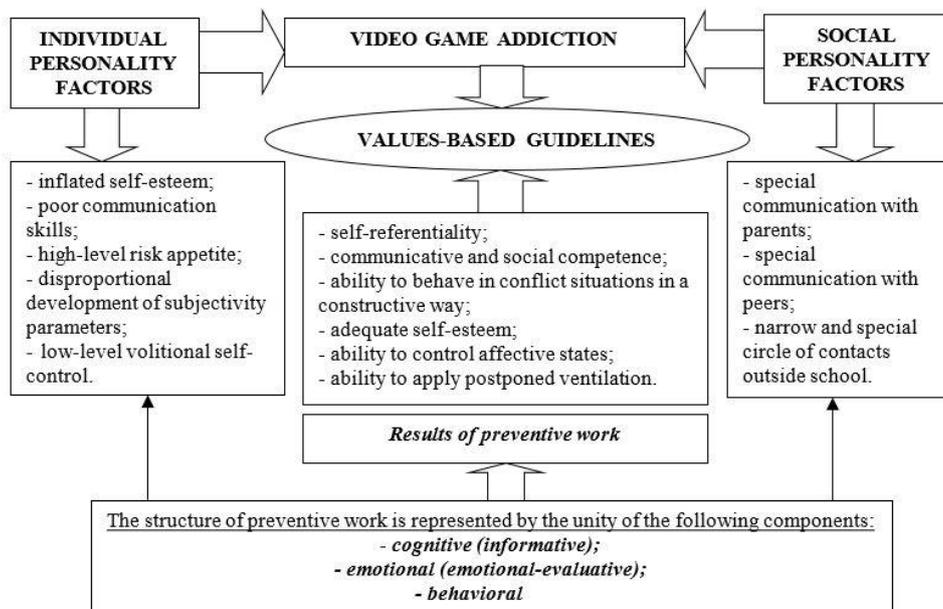


Fig. 1. Model of forming psychological resistance to video game addiction in early adolescence

While building the model above, we considered a forming personality as an active subject of some activity included in a complex system of polysubjective "subject-subject" and "subject-object" relations.

Each individual develops and forms through activity, socialization and purposeful education.

Personal development and upbringing are determined by natural potential, social environment, learning conditions, cooperation with parents, teachers and other people, as well as the student's educational and cognitive activity. This allows considering these characteristics as the main conditions for development and education. Personal development and upbringing are defined as positive personality changes that happen in time, cover the period of preschool, school and university, represent themselves in quantitative and qualitative structural transformations in the intellectual-cognitive, emotional, motivational-demanding spheres and the system of social relations that can be captured with special tools.

V. CONCLUSION

The addictive behavior of schoolchildren formed as a result of interaction with objects that can cause addiction has not been comprehensively addressed by educational institutions since there is still no psychological and pedagogical support for solving this problem either in the scientific or methodological aspect; therefore, there are no specialists who can assist schoolchildren in resolving the above-mentioned issue.

We believe that the prevention of addictive behavior should begin much earlier than in teenage years. In a general sense, it is an integral component of the development of a fully functioning person. In a narrower sense, it should primarily form such personality traits as independence, self-sufficiency, creativity and stress resistance. Group psycho-corrective work should start in elementary school or even in preschool educational institutions. In this regard, educators can apply gaming techniques and creative methods

of expression. Currently, gaming techniques lie at the core of group work with teenagers.

Educational institutions should implement systemic and comprehensive activities for the primary prevention of video game addiction among preteens.

The main target groups involved in the preventive measures taken by educational institutions are as follows:

- 1) Students;
- 2) Teaching staff;
- 3) Students' family.

Based on the differentiated approach to the prevention of video game addiction, the healthy lifestyle of adolescents is formed with due regard to their age and individual characteristics typical of a certain age group.

The pedagogical work with preteens should aim at developing their personality traits and social skills, as well as teaching new forms of behavior. Preteens get an idea of themselves, learn to communicate with others, understand their behavior, empathize, resolve conflict situations and make their own decisions.

The development of the teacher's informative competence in the field of preventing video game addiction among younger adolescents includes the following components:

- Instructing teaching staff in methods and means of preventing video game addiction among children of different age groups;
- Training teachers in effective communication with such children;
- Creating a preventive mechanism in each school considering special characteristics of this educational institution.

It is necessary to increase the psychological and pedagogical awareness of parents on the issue of video game addiction, including developing their knowledge and skills that ensure effective and enriching family behavior.

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To ensure the effective prevention of video game addiction among preteens attending educational institutions, the following measures are needed:

- Systematic and differentiated work in all spheres of student life involving all the main significant persons;
- Program-targeted approach;
- Parents' provision of positive public opinion about the work of educational institutions for preventing video game addiction among preteens;
- Analysis of the effective preventive work carried out by homeroom teachers and the amendment of their activities;
- Provision of information on all preventive measures to the entire school, parents and other interested parties, as well as their coverage in mass media;
- Monitoring and evaluation of the effective preventive work carried out in educational institutions.

In a general sense, the program for preventing video game addiction is an integral component of the development of a fully functioning preteen. In a narrower sense, it should primarily form such personality traits as independence, self-sufficiency, creativity and stress resistance.

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